



COMMONWEALTH of VIRGINIA

Matthew J. Strickler
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
Blue Ridge Regional Office
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David K. Paylor
Director

Robert J. Weld
Regional Director

December 20, 2018

Mr. Matthew Stewart
Site Director
Celanese Acetate, LLC
3520 Virginia Avenue
Narrows, VA 24124

Location: Giles County
Registration No.: 20304

Dear Mr. Stewart:

Attached is a significant modification to Celanese Acetate, LLC Title V permit BRRO-20304 June 30, 2003 last amended January 25, 2017 to operate your facility pursuant to 9VAC5 Chapter 80 Article 1 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning December 20, 2018.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on April 18, 2018 and solicited written public comments by placing a newspaper advertisement in the *Roanoke Times* on November 19, 2018. The thirty-day required comment period, provided for in 9VAC5-80-270 expired on December 19, 2018.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to operate shall not relieve {Company name} of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever

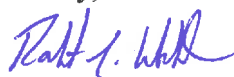
occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact Terry Moore at (540) 598-0111 or terry.moore@deq.virginia.gov

Sincerely,



Robert J. Weld
Regional Director

Attachment: Permit

cc: Riley Burger – EPA Region III (burger.riley@epa.gov)
Carrie McCumbers – West Virginia DEP (carrie.mccumbers@wv.gov)
Tim Overstreet – DEQ BRRO Air Inspector
Terry Moore – DEQ BRRO Air Permit Writer
Susan Tripp – DEQ OAPP



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Robert J. Weld
Regional Director

Federal Operating Permit

Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Celanese Acetate, LLC.
Facility Name:	Celanese Acetate
Facility Location:	Route 460, 4 miles east of Narrows, Virginia
Registration Number:	20304
Permit Number:	BRRO-20304

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Sections I through XIV)

June 30, 2003

Effective Date

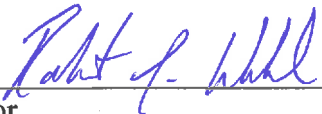
January 25, 2017

Administrative Amendment Date

December 20, 2018

Significant Amendment Date

June 30, 2008¹
Expiration Date


Regional Director

December 20, 2018
Signature Date

Table of Contents, 2 pages
Permit Conditions, 74 pages

¹ Celanese Acetate, LLC submitted a timely and complete application for a Title V Permit renewal therefore the source is operating under an application shield according to 9VAC5-80-80 F.5 and 9VAC5-80-140.

Table of Contents

I. FACILITY INFORMATION.....	5
II. EMISSION UNITS.....	7
III. DEPARTMENT 6 – ACETATE	18
A. LIMITATIONS.....	18
B. MONITORING	19
C. RECORDKEEPING	19
D. TESTING	20
IV. DEPARTMENT 8 – ACID DOPE MANUFACTURING	20
A. LIMITATIONS.....	20
B. MONITORING	21
C. RECORDKEEPING	23
D. TESTING	24
V. DEPARTMENT 9 – CELLULOSE ACETATE MANUFACTURING EQUIPMENT	24
A. LIMITATIONS.....	24
B. MONITORING	27
C. RECORDKEEPING	30
D. TESTING	31
VI. DEPARTMENT 10 - ACID RECOVERY	31
A. LIMITATIONS.....	31
B. MONITORING	33
C. RECORDKEEPING	34
D. TESTING	36
E. REPORTING	36
VII. ANHYDRIDE MANUFACTURING.....	37
A. LIMITATIONS.....	37
B. MONITORING	41
C. RECORDKEEPING	44
D. TESTING	45
E. INITIAL NOTIFICATION.....	47
F. REPORTING	47
G. GRANTING PERMIT	48
VIII. PREPARATION/SOLVENT RECOVERY/EXTRUSION.....	49
A. LIMITATIONS.....	49
B. MONITORING	54
C. RECORDKEEPING	56
D. TESTING	57
IX. WASTEWATER TREATMENT PLANT	58
A. LIMITATIONS.....	58
B. MONITORING	59
C. RECORDKEEPING	60
D. TESTING	60
X. JET DEPARTMENT	61
A. LIMITATIONS.....	61
B. MONITORING	61

C.	RECORDKEEPING	62
D.	TESTING	62
E.	REPORTING	63
XI.	FACILITY WIDE CONDITIONS	64
A.	LIMITATIONS.....	64
B.	MONITORING	65
C.	RECORDKEEPING	66
D.	TESTING	67
E.	REPORTING	67
XII.	INSIGNIFICANT EMISSION UNITS.....	67
XIII.	PERMIT SHIELD & INAPPLICABLE REQUIREMENTS	71
XIV.	GENERAL CONDITIONS	71
A.	FEDERAL ENFORCEABILITY	71
B.	PERMIT EXPIRATION	72
C.	RECORDKEEPING AND REPORTING	72
D.	ANNUAL COMPLIANCE CERTIFICATION	73
E.	PERMIT DEVIATION REPORTING	74
F.	FAILURE/MALFUNCTION REPORTING	74
G.	SEVERABILITY	74
H.	DUTY TO COMPLY	75
I.	NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE	75
J.	PERMIT MODIFICATION	75
K.	PROPERTY RIGHTS	75
L.	DUTY TO SUBMIT INFORMATION	75
M.	DUTY TO PAY PERMIT FEES.....	76
N.	FUGITIVE DUST EMISSION STANDARDS	76
O.	STARTUP, SHUTDOWN, AND MALFUNCTION	77
P.	ALTERNATIVE OPERATING SCENARIOS	77
Q.	INSPECTION AND ENTRY REQUIREMENTS	77
R.	REOPENING FOR CAUSE.....	78
S.	PERMIT AVAILABILITY	78
T.	TRANSFER OF PERMITS	78
U.	THIS CONDITION INTENTIONALLY LEFT BLANK.....	79
V.	PERMIT REVOCATION OR TERMINATION FOR CAUSE.....	79
W.	DUTY TO SUPPLEMENT OR CORRECT APPLICATION.....	79
X.	STRATOSPHERIC OZONE PROTECTION.....	79
Y.	ASBESTOS REQUIREMENTS	79
Z.	ACCIDENTAL RELEASE PREVENTION	80
AA.	CHANGES TO PERMITS FOR EMISSIONS TRADING	80
BB.	EMISSIONS TRADING	80

I. Facility Information

Permittee
Celanese Acetate, LLC
3250 Virginia Avenue
Narrows, VA 24124

Responsible Official
Matthew Stewart
Site Manager

Facility
Celanese Acetate, LLC
3520 Virginia Avenue
Narrows, VA 24124

Contact Person
Eric Gates
Engineer, Environmental
540-921-6410

County-Plant Identification Number: 51-071-00004

Facility Description:

NAICS 325211 – Plastics Materials and Resin Manufacturing

Establishments primarily engaged in manufacturing synthetic resins, plastics materials, and nonvulcanizable elastomers. Important products of this industry include: cellulose plastics materials; phenolic and other tar acid resins; urea and melamine resins; vinyl resins; styrene resins; alkyd resins; acrylic resins; polyethylene resins; polypropylene resins; rosin modified resins; coumarone indene and petroleum polymer resins; miscellaneous resins, including polyamide resins, silicones, polyisobutylenes, polyesters, polycarbonate resins, acetal resins, and fluorohydrocarbon resins; and casein plastics.

NAICS 325221 – Cellulosic Organic Fiber Manufacturing

Establishments primarily engaged in manufacturing cellulosic fibers (including cellulose acetate and regenerated cellulose such as rayon by the viscose or cuprammonium process) in the form of monofilament, yarn, staple, or tow suitable for further manufacturing on spindles, looms, knitting machines, or other textile processing equipment.

NAICS 325199 – Industrial Organic Chemicals, Not Elsewhere Classified

Establishments primarily engaged in manufacturing industrial organic chemicals, not elsewhere classified. Important products of this industry include: (1) aliphatic and other acyclic organic chemicals, such as ethylene, butylene, and butadiene; acetic, chloroacetic, adipic, formic, oxalic, and tartaric acids and their metallic salts; chloral, formaldehyde, and methylamine; (2) solvents,

such as amyl, butyl, and ethyl alcohols; methanol; amyl, butyl, and ethyl acetates; ethyl ether, ethylene glycol ether, and diethylene glycol ether; acetone, carbon disulfide and chlorinated solvents, such as carbon tetrachloride, perchloroethylene, and trichloroethylene; (3) polyhydric alcohols, such as ethylene glycol, sorbitol, pentaerythritol, synthetic glycerin; (4) synthetic perfume and flavoring materials, such as coumarin, methyl salicylate, saccharin, citral, citronellal, synthetic geraniol, ionone, terpeneol, and synthetic vanillin; (5) rubber processing chemicals, such as accelerators and antioxidants, both cyclic and acyclic; (6) plasticizers, both cyclic and acyclic, such as esters of phosphoric acid, phthalic anhydride, adipic acid, lauric acid, oleic acid, sebacic acid, and stearic acid; (7) synthetic tanning agents, such as naphthalene sulfonic acid condensates; (8) chemical warfare gases; and (9) esters, amines, etc., of polyhydric alcohols and fatty and other acids.

NAICS 332813 – Electroplating, Plating, Polishing, Anodizing, and Coloring

Establishments primarily engaged in all types of electroplating, plating, anodizing, coloring, and finishing of metals and formed products for the trade. Also included in this industry are establishments that perform these types of activities, on their own account, on purchased metals or formed products.

The facility primarily manufactures cellulose acetate (CA) flake and fiber (NAICS 325211 & 325221). Acetic acid is recovered during CA production and a portion is converted to acetic anhydride for internal process use (NAICS 325199). Extrusion jets are also produced on-site to support the extrusion process associated with CA manufacturing. The extrusion jet manufacturing process includes electroplating operations (NAICS 332813).

CA is produced using acetic acid and cellulose (wood pulp) as raw materials. Wood pulp is (1) shredded in attrition mills, (2) pretreated with acetic acid and then (3) mixed in acetyler reactors with crystallized A-mix (a solution of acetic acid and acetic anhydride). The reactor effluent is neutralized with magnesium acetate and heated in the ripeners to produce acid dope. The acid dope is precipitated, hardened, washed and dried to produce CA flake. The extrusion complex dissolves the CA flake in acetone to produce dope, which is extruded through jets to produce CA filament for further processing. The facility is a Title V major source of PM-10, CO, SO₂, NO_x, VOC and Total HAPs. This source is located in an attainment area for all pollutants and is a PSD major source.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Department 6 - Acetate							
1D6SL001S1 & 1D6SL002S1	1D6SL001E1 & 1D6SL002E1	Magnesium Oxide Silos		Bin Vent Filters	None	PM & PM-10	8/15/2011 SOP last amended 12/20/2018
1D6MO001S1		Magnesium Acetate Mixers (8); Nos. 1-8.	Nos. 1, 3-8 18,000 gallons; No. 2 15,100 gallons	None	None	NA	8/15/2011 SOP last amended 12/20/2018
		Magnesium Acetate Sludge Vat 5	18,400 gallons	D8 Acid Vent Scrubbers	1D8SC001S1 & 1D8SC001S2	VOC	8/15/2011 SOP last amended 12/20/2018
1D6CA001S1		Proprietary Mixer		None	None	NA	8/15/2011 SOP last amended 12/20/2018
1D6TK001S1 & 1D6TK001S2	1D6TK001E1 & 1D6TK001E2	Mag Acetate Storage Tanks	78,000 gallons	None	None	NA	8/15/2011 SOP last amended 12/20/2018
Department 8 – Acid Dope Manufacturing							
1D8SC001S1 & 1D8SC001S2	1D8SC001E1, 1D8SC001E2 & 1D8SC001E3	Equalization Tank		D8 Acid Vent Scrubbers	D8 Acid Vent Scrubbers	VOC	8/15/2011 SOP last amended 12/20/2018
		Vat 19 (Pan Charges)					
		Vat 20 (Pan Charges)					
		Magnesium Acetate Head Tanks (4)					
		Pretreatment Mix Storage Vats (4)					
		Vat B-2					
		Vat B-3					
		Vat B-4					
		Pretreat Mix Head Tanks (2)					

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
		No. 4 Condensate Vat					
1D8SC001S1 & 1D8SC001S2	1D8SC001E1, 1D8SC001E2 & 1D8SC001E3	A-Mix Holding Tanks (10)	5,000 gallons	D8 Acid Vent Scrubbers	D8 Acid Vent Scrubbers	VOC	8/15/2011 SOP last amended 12/20/2018
1D8SC001S1 & 1D8SC001S2	1D8SC001E1, 1D8SC001E2 & 1D8SC001E3	Crystallizers (26)					
		Ripeners (52)	21,000 gallons				
		Acetylizers (26)					
		Scrubber Acid Vat					
1D8SC002S1	1D8SC002E1	Attrition Mills (8)		Dept 8 Pulp Acid Scrubber	1D8SC001S2	VOC & PM	8/15/2011 SOP last amended 12/20/2018
		Cyclones (26)					
		Pretreaters (26)					
Department 9 – Cellulose Acetate Flake Manufacturing (Finishing Lines 1-8)							
1D1FB001S1	1D1FB001E1	No. 1 Exhaust Serving Flake Bins 1-64		Fabric Filters	1D1FB001S1 & 1D1FB002S1	PM & PM-10	8/15/2011 SOP last amended 12/20/2018
1D1FB002S1	1D1FB002E1	No. 2 Exhaust Serving Flake Bins 65-96		Fabric Filters	1D1BH001S1 & 1D1BH002S1	PM & PM-10	8/15/2011 SOP last amended 12/20/2018
		Flake Screws & Fluidizers		Fabric Filters	1D1BH001S1 & 1D1BH002S1	PM & PM-10	8/15/2011 SOP last amended 12/20/2018
	1D9SC001E1	No. 9 Pan Charge Tank	2,300 gallons	D9 Acid Vent Scrubber	1D9SC001C1	VOC	8/15/2011 SOP last amended 12/20/2018
		Pulp Acid Scrubber Runoff Vat 21	30,000 gallons				
		No. 8 Blend Tank					
		Precipitating Acid Vats: No. 7, 17 & 18					
		Vat 39 Weak Acid Side Stream	53,000 gallons				
		Continuous Precipitators (8)					
		Slurry Tank					

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
	1D9SC001E1	Hardening Tanks (8)		D9 Acid Vent Scrubber	1D9SC001C1	VOC	8/15/2011 SOP last amended 12/20/2018
	1D9SC001E1	Vibrating Screens (8)		D9 Acid Vent Scrubber	1D9SC001C1	VOC	8/15/2011 SOP last amended 12/20/2018
		Vat 33	50,000 gallons				
		Vat 34	50,000 gallons				
		Vat 35	50,000 gallons				
1D9TK002S1		Clean Acid Vat No. 36	90,000 gallons				
1D9TK003S1		Clean Acid Vat No. 38	83,000 gallons				
1D9TK004S1		Clean Acid Vat No. 40	83,000 gallons				
		Clean Acid Vat No. 41	83,000 gallons				
		"A" Washers (8)					
1D9WB002S1 – 1D9WB002S8		"B" Washers (8)		None	None	NA	8/15/2011 SOP last amended 12/20/2018
1D9TK001S1 – 1D9TK007S1	1D9SC001E1	Acid Dope Retention Tanks 1-7	<10,000 gallons each	D9 Acid Vent Scrubber	1D9SC001C1	VOC	8/15/2011 SOP last amended 12/20/2018
1D9DR001S1	1D9DR001E1	Flake Dryer No. 1	0.08 cu/hr	Wet Scrubber	1D9DR001C1	PM & PM-10 & VOC	8/15/2011 SOP last amended 12/20/2018
1D9DR002S1	1D9DR002E1	Flake Dryer No. 2	0.08 cu/hr	Wet Scrubber	1D9DR002C1	PM & PM-10 & VOC	8/15/2011 SOP last amended 12/20/2018
1D9DR003S1	1D9DR003E1	Flake Dryer No. 3	0.08 cu/hr	Wet Scrubber	1D9DR003C1	PM & PM-10 & VOC	8/15/2011 SOP last amended 12/20/2018
1D9DR004S1	1D9DR004E1	Flake Dryer No. 4	0.08 cu/hr	Wet Scrubber	1D9DR004C1	PM & PM-10 & VOC	8/15/2011 SOP last amended 12/20/2018
1D9DR005S1	1D9DR005E1	Flake Dryer No. 5	0.08 cu/hr	Wet Scrubber	1D9DR005C1	PM & PM-10 & VOC	8/15/2011 SOP last amended 12/20/2018

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1D9DR006S1	1D9DR006E1	Flake Dryer No. 6	0.133 cu/hr	Wet Scrubber	1D9DR006C1	PM & PM-10 & VOC	8/15/2011 SOP last amended 12/20/2018
1D9DR007S1	1D9DR007E1	Flake Dryer No. 7	0.08 cu/hr	Wet Scrubber	1D9DR007C1	PM & PM-10 & VOC	8/15/2011 SOP last amended 12/20/2018
1D9DR008S1	1D9DR008E1	Flake Dryer No. 8	0.08 cu/hr	Wet Scrubber	1D9DR008C1	PM & PM-10 & VOC	8/15/2011 SOP last amended 12/20/2018
1D9TS001S1	1D9TS001E1	Titration Station Hoods (2)		None	None	NA	None
1D9VT001S1	1D9VT001E1	Squeeze Rolls (8)		None	None	NA	None
Department 10 – Acid Recovery							
1ARRC001S1	NA	Isopropanol Reactor		NA	NA	NA	NA
1ARRU		Extraction towers (12)		Acid Recovery Scrubber System (Stage 1 - D10N, D10S & D10-X Scrubber; Stage 2 Scrubbers (2 in parallel); Stage 3 Scrubbers (2 in parallel))	Stage 1 - 1ARSC001C1, 1ARSC001C2, 1ARSC002C1, Stage 2 - 1ARSC201C1, 1ARSC202C1, Stage 3 - 1ARSC301C1 & 1ARSC302C1	VOC	8/15/2011 SOP last amended 12/20/2018
		Vaporizers (11)					
		Main Stills (7)					
		Effluent Stills (5)					
		IPOH Separator					
		IPOH Still					
		Solvent Separator Tanks (6)					
		Clearing Tanks (12)	<10,000 gallons				
		Effluent Feed Tanks (4)	<10,000 gallons				
		Main Feed Tanks (4)	<10,000 gallons				
		IPOH Reflux Tank	<10,000 gallons				
		Emergency Tank	<10,000 gallons				
		Measuring Tank, Solvent Feed Tanks (4)	<10,000 gallons				
		Sparge Tanks (4)	<10,000 gallons				
		Sparge Condensers (5)					
		Sample Drain Tanks (4)					

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
		Pure Still	55 gallon drum				
1ARTK110S1		Tank 110 – Acetic Anhydride	134,500 gallons	CC Tank Farm Vent Scrubber	1ARSC003C1	VOC	8/15/2011 SOP last amended 12/20/2018
1ARTK111S1		Tank 111 – Acetic Anhydride	134,500 gallons				
1ARTK112S1		Tank 112 – Glacial Acetic Acid	134,500 gallons				
1ARTK113S1		Tank 113 – Glacial Acetic Acid	188,000 gallons				
1ARTK114S1		Tank 114 – Acetic Anhydride	188,000 gallons	CC Tank Farm Vent Scrubber	1ARSC003C1	VOC	8/15/2011 SOP last amended 12/20/2018
1ARTK115S1		Tank 115 – Acetic Anhydride	188,000 gallons				
1ARTK116S1		Tank 116 – Acetyl Storage	87,500 gallons				
1ARTK117S1		Tank 117 – Acetyl Storage	87,500 gallons				
		Weak Acid Storage Tanks Nos. 9 & 10	282,000 gallons				
1ARTK001S1	1ARTK001E1	Tank 130 – Isopropyl Alcohol	30,000 gallons	None	None	NA	8/15/2011 SOP last amended 12/20/2018
1ARTK002S1	1ARTK002E1	Tank 131 – Isopropyl Alcohol	30,000 gallons	None	None	NA	8/15/2011 SOP last amended 12/20/2018
1ARTK003S1	1ARTK003E1	Tank 132- MEK	16,000 gallons	None	None	NA	8/15/2011 SOP last amended 12/20/2018
1ARTK004S1	1ARTK004E1	Tank 133 - Backup	16,000 gallons	None	None	NA	8/15/2011 SOP last amended 12/20/2018
1ARTK005S1	1ARTK005E1	Tank 134 - Cyclohexane	16,000 gallons	None	None	NA	8/15/2011 SOP last amended

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
							12/20/2018
1ARSC004S1		Recovery Vats (3)	Nos. 1 and 2 13,800 gallons; No. 3 13,600 gallons	None	1ARSC004C1	VOC	8/15/2011 SOP last amended 12/20/2018
		Weak Acid Vat No. 11	50,000 gallons				
		Glacial Tanks 1, 2, 3&4	<10,000 gallons				
		Glacial Acetic Acid Storage Tanks 105 and 107	50,000 gallons				
		A-Mix Blend Tanks 101, 102, 103, 104 and 106	36,800 gallons & 54,000 gallons (Tank 106)				
1ARSC004S1		AM Process Condensate Feed Tanks	<10,000 gallons	None	None	VOC	8/15/2011 SOP last amended 12/20/2018
		AM Sump		None	None	NA	8/15/2011 SOP last amended 12/20/2018
		AM Surge Tank		None	None	NA	8/15/2011 SOP last amended 12/20/2018
1AMSS001S1		Stripping Still #2	12,000 lbs/hr	Ketene Furnaces	1AMFN001C1, 1AMFN002C1, 1AMFN003C1 & 1AMFN004C1	VOC & CO	8/15/2011 SOP last amended 12/20/2018
Anhydride Manufacturing							
1AMFN001S1	1AMFN001E1	Ketene Furnace 1 East	22 MMBtu/hr	Ketene Furnace 1 East	1AMFN001C1	VOC, NOx, & CO	8/15/2011 SOP last amended 12/20/2018
1AMFN002S1	1AMFN002E1	Ketene Furnace 1 West	22 MMBtu/hr	Ketene Furnace 1 West	1AMFN002C1	VOC, NOx, & CO	8/15/2011 SOP last amended 12/20/2018
1AMFN003S1	1AMFN003E1	Ketene Furnace 2 East	22 MMBtu/hr	Ketene Furnace 2 East	1AMFN003C1	VOC, NOx, & CO	8/15/2011 SOP last amended

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
							12/20/2018
1AMFN004S1	1AMFN004E1	Ketene Furnace 2 West	22 MMBtu/hr	Ketene Furnace 2 West	1AMFN004C1	VOC, NO _x , & CO	8/15/2011 SOP last amended 12/20/2018
		Adsorbers/Scrubbers		Ketene Furnaces	1AMFN001C1, 1AMFN002C1, 1AMFN003C1 & 1AMFN004C1	VOC	8/15/2011 SOP last amended 12/20/2018
		Light Ends Column					
		Color Reactor					
1AMNCN002S1	1AMNCN002E1	Flashing Column, DP Stills (4)			None	NA	NA
1AMNCN003S1	1AMNCN003E1	Flashing Column, DP Stills (4)			None	NA	NA
1AMCN001S1 & 1AMTK001S1	1AMCN001E1 & 1AMTK001E1	Methanol Brine System (including the Methanol Brine Storage Tank and Expansion Tank)	Tanks each <10,000 gallons		None	NA	8/15/2011 SOP last amended 12/20/2018
<u>Preparation/Solvent Recovery/Extrusion</u>							
2PRVT014S1	2PRVT014E1	CA Flake Weigh Hopper Receiver – Alternate Pneumatic Conveyor Line			None	NA	8/15/2011 SOP last amended 12/20/2018
2PRVT015S1	2PRVT015E1	CA Flake Weigh Hopper Receiver (Backup Charge System) – Alternate Pneumatic Conveyor Line			None		8/15/2011 SOP last amended 12/20/2018
2PRVT011S1	2PRVT011E1	Building 2 - CA Flake Weigh Hopper Receiver	0.136 units/hour	Dust Collector 6	2PRVT011C1	PM-10	8/15/2011 SOP last amended 12/20/2018
2PRVT017S1	2PRVT017E1	Building 2 – WOFA	3.57 units/year	Dust Collector 12	2PRVT017C1	PM-10	8/15/2011 SOP

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
		Handling					last amended 12/20/2018
2PRVT013S1	2PRVT013E1	CA Flake Weigh Hopper Receiver		Dust Collector No. 8	2PRVT013C1	PM	NA
2PRVT019S1	2PRVT019E1	Truck Unloading Station (LIVTRAL)		Truck Unloading Station Dust Collector 14	2PRVT019C1	PM & PM-10	8/15/2011 SOP last amended 12/20/2018
		Bldg 32 Mixers 9, 10, 11 & 11A		Dust Collector 8, 10 & 11	2PRVT013C1, 2PRVT014C1 & 2PRVT015C1	PM & PM-10	8/15/2011 SOP last amended 12/20/2018
2PRVT012S1	2PRVT012E1	Semiworks	5,000 lb/hr; 15,000 lb/day; 2,190 tons/yr	Semiworks Fabric Filter	2PRVT012C1	PM & PM-10	8/15/2011 SOP last amended 12/20/2018
2PRVT020S1	2PRVT020E1	Semco Unit "Supersucker"	15,000 lbs/hr	Semco Unit Fabric Filter	2PRVT020C1	PM & PM-10	8/15/2011 SOP last amended 12/20/2018
2PRSL001S1	2PRSL001E1	Flake Silo 1		Dust Collector 1	2PRSL001C1	PM	8/15/2011 SOP last amended 12/20/2018
2PRSL002S1	2PRSL002E1	Flake Silo 2		Dust Collector 2	2PRSL002C1	PM	8/15/2011 SOP last amended 12/20/2018
2PRSL003S1	2PRSL003E1 & 2PRSL003E2	Flake Silo 3		Dust Collector 3 and 3A	2PRSL003C1 & 2PRSL003C2	PM	8/15/2011 SOP last amended 12/20/2018
2PRSL004S1	2PRSL004E1	Flake Silo 4		Dust Collector 4	2PRSL004C1	PM	8/15/2011 SOP last amended 12/20/2018
2PRSL005S1	2PRSL005E1	Flake Silo 5		Dust Collector 5	2PRSL005C1	PM	8/15/2011 SOP last amended 12/20/2018
2PRVT021S1		Flake Loadout Facility	30,000 lbs/hr	Flake Loadout Baghouse	2PRVT019C1	PM	2/11/2005 minor NSR

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Jet Department							
5JMT001S1	5JMT001E1	Chrome Plate Bath (Chrome MACT)	200 amps; 1.2 MM amps/yr	None	None	NA	NA
Maintenance Complex							
3BHVT003S1	3BHVT003E1	MeCl ₂ Dryer		None	None	NA	NA
3MTDG001S1	3MTDG001E1	9 Miscellaneous Degreasers (3) Bldg 32, (2) Bldg 2, (1) Bldg 5, (1) Bldg 14 & (2) CC Shops		None	None	NA	NA
3LFAS001S1		Landfill		None	None	NA	NA
Wastewater Treatment Plant (WWTP)							
3WWTK004S1	WWTK004E1	Diversion Tank	2 million gallons	None	None	NA	8/15/2011 SOP last amended 12/20/2018
3WWTK005S1	WWTK005E1	Diversion Tank	2 million gallons	None	None	NA	8/15/2011 SOP last amended 12/20/2018
3WWTK003S1	WWTK003E1	Equalization Tank	4 million gallons	None	None	NA	8/15/2011 SOP last amended 12/20/2018
3WWRS001S1		Open Screens (4)		None	None	NA	8/15/2011 SOP last amended 12/20/2018
3WWRS001S1		Open Sump		None	None	NA	8/15/2011 SOP last amended 12/20/2018
3WWSE001S1	3WWSE001E1	Selector 1		None	None	NA	8/15/2011 SOP last amended 12/20/2018
3WWSE002S1	3WWSE002E1	Selector 2		None	None	NA	8/15/2011 SOP last amended

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
							12/20/2018
3WWSE003S1	3WWSE003E1	Selector 3		None	None	NA	8/15/2011 SOP last amended 12/20/2018
3WWBR001S1	WWBR001E1	Biohoch Reactor 1		None	None	NA	8/15/2011 SOP last amended 12/20/2018
3WWBR002S1	WWBR002E1	Biohoch Reactor 2		None	None	NA	8/15/2011 SOP last amended 12/20/2018
WWSL001S1	WWSL001E1	Selectors Silo		None	None	NA	8/15/2011 SOP last amended 12/20/2018
WWSL002S1	WWSL002E1	Solids Silo		None	None	NA	8/15/2011 SOP last amended 12/20/2018
WWAS001S1		Wastewater Treatment Plant: Process Wastewater Pump Station, Preliminary Treatment Return Pump Station, Chemical Sewer Water Pump Station, White Sludge Ponds (2), Biohoch Pump Station, Plate and Frame Press, Fugitive Emissions		None	None	NA	8/15/2011 SOP last amended 12/20/2018
3WWGN001S1		WWTP IPS Emergency Backup Diesel Generator	890 HP	None	None	NA	NA
3WWGN002S1		WWTP IPS Emergency Backup Diesel Generator	890 HP	None	None	NA	NA
Maintenance Complex							
3BHVT003S1	3BHVT003E1	MeCl ₂ Dryer		None	None	NA	NA
3MTDG001S1	3MTDG001E1	9 Miscellaneous		None	None	NA	NA

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
		Degreasers (3 – Bldg 32, 2 – Bldg 2, 1 – Bldg 5, 1 – Bldg 14 and 2 – CC Shops)					
3LFAS001S1	3LFAS001E1	Landfill		None	None	NA	NA
	3LFTK001E1	Leachate Tank		None	None	NA	NA

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

III. Department 6 – Acetate

A. Limitations

1. **Emission Controls** - Particulate emissions from the Magnesium Oxide Silos (1D6SL001S1 & 1D6SL002S1) shall be controlled by bin vent filters. The bin vent filters shall be provided with adequate access for inspection and shall be in operation when material is entering or exiting the silos.
(9VAC5-80-110 and Condition 3 of the 8/15/2011 permit amended 12/20/2018)
2. **Emission Controls** - Particulate emissions from the Magnesium Acetate Sludge Vat 5 shall be controlled by the D8 Scrubber. The scrubber shall be provided with adequate access for inspection and shall be in operation when the vat is operating.
(9VAC5-80-110 and Condition 4 of the 8/15/2011 permit amended 12/20/2018)
3. **Production** - The facility shall not produce magnesium acetate for off-site shipment.
(9VAC5-80-110 and Condition 5 of the 8/15/2011 permit amended 12/20/2018)
4. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the Magnesium Acetate Mixers (1D6MO001S1), Magnesium Acetate Sludge Vat 5, Proprietary Mixer (1D6CA001S1) and Mag Acetate Storage Tanks (1D6TK001S1 & 1D6TK001S2) shall be operated in compliance with the requirements of 40 CFR Part 63, Subpart FFFF.
(9VAC5-80-110 and Condition 6 of the 8/15/2011 permit amended 12/20/2018)
5. **Process Emission Limits** - Emissions from the operation of the bin vent filter controlling emissions from the Magnesium Oxide Silos shall not exceed the limits specified below:

Particulate Matter (PM) 0.02 gr/dscf

PM-10 0.02 gr/dscf

(9 VAC 5-80-110 and Condition 7 of the 8/15/2011 permit amended 12/20/2018)

6. **Process Emission Limits** - Emissions from the operation of the Magnesium Acetate Mixing equipment (1D6MO001S1) shall not exceed the limits specified below:

Volatile Organic Compounds	12.4 lbs/batch	9.7 tons/yr
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The annual emission limit is derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible

evidence of the exceedance of emission limits. Compliance with the annual emission limit may be determined as stated in Conditions III.C.1 and V.A.7.
(9VAC5-80-110 and Condition 8 of the 8/15/2011 permit amended 12/20/2018)

B. Monitoring

1. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the bin vent filters controlling particulate emissions from the Magnesium Oxide Silos and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance;
 - b. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of each control device and maintain records of inspection results;
 - c. Maintain an inventory of spare parts;
 - d. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum; and
 - e. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance, inspections and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9VAC5-80-110 and Condition 10 of the 8/15/2011 permit amended 12/20/2018)

C. Recordkeeping

1. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
 - a. Annual use of magnesium oxide, calculated monthly as the sum of each consecutive 12-month period.

- b. Annual VOC emission calculations and all supporting documentation for emissions from the Magnesium Acetate Mixing equipment using calculation methods approved by the Blue Ridge Regional Office to verify compliance with the emissions limitations in Condition III.A.6. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
- c. Scheduled and unscheduled maintenance, operator training and maintenance/inspection reports as required by Condition III.B.1.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9VAC5-80-110 and Condition 9 of the 8/15/2011 permit amended 12/20/2018)

D. Testing

- 1. The facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.
(9VAC5-50-30 and 9VAC5-80-110)

IV. Department 8 – Acid Dope Manufacturing

A. Limitations

- 1. **Emission Controls – Department 8 Acid Vent Scrubbers** - VOC emissions from Ripeners and Acetylizers shall be controlled by the Department 8 Acid Vent Scrubbers (1D8SC001S1 & 1D8SC001S2) having a minimum control efficiency of 99.0%. The scrubbers shall be provided with adequate access for inspection and shall be in operation when the emission units that they are controlling are operating.
(9VAC5-80-110 and Condition 11 of 8/15/2011 permit amended 12/20/2018)
- 2. **Emission Controls – Department 8 Acid Vent Scrubbers** - VOC emissions from the Equalization Tank, Vats 19 & 20, Magnesium Acetate Head Tanks (4), Pretreatment Mix Storage Vats (4), Vats B-2, B-3, B-4 & B-5, Pretreat Mix Head Tanks (2), No. 4 Condensate Vat, A-Mix Holding Tanks (10), Crystallizers (26) and Scrubber Acid Vat shall be controlled by the Department 8 Acid Vent Scrubbers (1D8SC001S1 & 1D8SC001S2). The scrubbers shall be provided with adequate access for inspection and shall be in operation when any emission unit that they are controlling is operating.
(9VAC5-80-110 and Condition 12 of 8/15/2011 permit amended 12/20/2018)
- 3. **Emission Controls – Pulp Acid Scrubber** - VOC emissions from the Pretreaters (26) shall be controlled by the Department 8 Pulp Acid Scrubber (1D8SC002S1). The scrubber shall be provided with adequate access for inspection and shall be in

operation when any emission unit that they are controlling is operating.
(9VAC5-80-110 and Condition 13 of 8/15/2011 permit amended 12/20/2018)

4. **Production** - The facility shall not produce acid dope for off-site shipment.
(9VAC5-80-110 and Condition 18 of 8/15/2011 permit amended 12/20/2018)
5. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the Pretreat Mix Head Tanks (2), No. 4 Condensate Vat, A-Mix Holding Tanks (10) and Pretreaters (26) shall be operated in compliance with the requirements of 40 CFR Part 63, Subpart FFFF.
(9VAC5-80-110 and Condition 19 of 8/15/2011 permit amended 12/20/2018)
6. **Process Emission Limits** - Emissions from the operation of the Department 8 Acid Vent Scrubbers (1D8SC001S1 & 1D8SC001S2) combined shall not exceed the limits specified below:

Volatile Organic 8.0 lbs/hr 35.0 tons/yr
Compounds

The annual emission limit is derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limit may be determined as stated in Conditions IV.A.4, IV.C.1 and V.A.7.
(9VAC5-80-110 and Condition 20 of 8/15/2011 permit amended 12/20/2018)

7. **Process Emission Limits** - Emissions from the operation of the Department 8 Pulp Acid Scrubber Column (1D8SC002S1) shall not exceed the limits specified below:

Volatile Organic 11.3 lbs/hr 49.6 tons/yr
Compounds

The annual emission limit is derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limit may be determined as stated in Conditions IV.A.4, IV.C.1 and V.A.7.
(9VAC5-80-110 and Condition 21 of 8/15/2011 permit amended 12/20/2018)

B. Monitoring

1. **Monitoring Devices – Department 8 Acid Vent Scrubbers** - The Department 8 Acid Vent Scrubbers (1D8SC001S1 & 1D8SC001S2) shall be equipped with devices to continuously measure the liquid flow and differential pressure through each scrubber.

Each monitoring device shall be installed, maintained, calibrated and operated in

accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the control device is operating.

(9VAC5-80-110 and Condition 14 of 8/15/2011 permit amended 12/20/2018)

2. **Monitoring Device Observation – Department 8 Acid Vent Scrubbers** - The control monitoring devices in Condition IV.B.1 shall measure the liquid flow and differential pressure through the scrubbers at least once per hour and the measurement shall be recorded at least once per day that the scrubbers are in operation. The permittee shall keep a log of the observations or electronically record measurements from the control monitoring device.

(9VAC5-80-110 and Condition 15 of 8/15/2011 permit amended 12/20/2018)

3. **Monitoring Devices – Pulp Acid Scrubber** - The Department 8 Pulp Acid Scrubber (1D8SC002S1) shall be equipped with devices to continuously measure the liquid flow through the scrubber.

Each monitoring device shall be installed within 180 days of the approved date of the 8/15/2011 State Operating Permit, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the control device is operating.

(9VAC5-80-110 and Condition 16 of 8/15/2011 permit amended 12/20/2018)

4. **Monitoring Device Observation – Pulp Acid Scrubber** - The control monitoring devices in Condition IV.B.3 shall continuously measure the liquid flow through the scrubbers and shall be recorded at least once per day that the scrubber is in operation. The permittee shall keep a log of the observations or electronically record measurements from the control monitoring device.

(9VAC5-80-110 and Condition 17 of 8/15/2011 permit amended 12/20/2018)

5. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the Department 8 Acid Vent Scrubbers, Department 8 Pulp Acid Scrubber and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Develop an inspection schedule, monthly at a minimum, to insure the operational

integrity of each control device and maintain records of inspection results.

- c. Maintain an inventory of spare parts.
- d. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- e. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance, inspections and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request. (9VAC5-80-110 and Condition 23 of the 8/15/2011 permit amended 12/20/2018)

C. Recordkeeping

- 1. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
 - a. Annual production of acid dope from Department 8. Annual production shall be calculated monthly as the sum of each consecutive 12-month period.
 - b. Annual VOC emissions calculations and all supporting documentation for emissions from the Department 8 Acid Vent Scrubbers (1D8SC001S1 & 1D8SC001S2) using calculation methods approved by the Blue Ridge Regional Office to verify compliance with the emissions limitations in Condition IV.A.6. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
 - c. Annual VOC emissions calculations and all supporting documentation for emissions from the Department 8 Pulp Acid Scrubber (1D8SC002S1) using calculation methods approved by the Blue Ridge Regional Office to verify compliance with the emissions limitations in Condition IV.A.7. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
 - d. Operation and control device monitoring records for the air pollution control device as required in Conditions IV.B.2 and IV.B.4.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9VAC5-50-50, 9VAC5-80-110 and Condition 22 of 8/15/2011 permit amended 12/20/2018)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9VAC5-50-30 and 9VAC5-80-110)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9VAC5-80-110)

V. Department 9 – Cellulose Acetate Manufacturing Equipment

A. Limitations

1. **Emission Controls - Flake Bins** – Particulate emissions from Flake Bins 1-64 and 65-96 shall be controlled by fabric filters (1D1FB001S1 & 1D1FB002S1). The fabric filters shall be provided with adequate access for inspection and shall be in operation when any emission unit that they are controlling is operating.
(9VAC5-80-110 and Condition 24 of 8/15/2011 permit amended 12/20/2018)
2. **Emission Controls - Flake Screws** – Particulate emissions from Flake Screws and Fluidizers shall be controlled by fabric filters (1D1BH001S1 & 1D1BH002S1). The fabric filters shall be provided with adequate access for inspection and shall be in operation when any emission unit that they are controlling is operating.
(9VAC5-80-110 and Condition 25 of 8/15/2011 permit amended 12/20/2018)
3. **Emission Controls - Flake Silos** – Particulate emissions from Flake Silos 1-5 shall be controlled by fabric filters (2PRSL001C1, 2PRSL002C1, PRSL003C1, PRSL003C2, PRSL004C1 & PRSL005C1). The fabric filters shall be provided with adequate access for inspection and shall be in operation when any emission unit that they are controlling is operating.
(9VAC5-80-110 and Condition 26 of 8/15/2011 permit amended 12/20/2018)
4. **Emission Controls - Flake Dryers 1-8** – Particulate and VOC emissions from Flake Dryers 1-8 (1D9DR001S1, 1D9DR002S1, 1D9DR003S1, 1D9DR004S1, 1D9DR005S1, 1D9DR006S1, 1D9DR007S1 & 1D9DR008S1) shall be controlled by a wet scrubber (1D9DR001C1, 1D9DR002C1, 1D9DR003C1, 1D9DR004C1, 1D9DR005C1, 1D9DR006C1, 1D9DR007C1 and 1D9DR008C1). The scrubbers shall be provided with adequate access for inspection and shall be in operation when the emission unit that it is controlling is operating.

(9VAC5-80-110 and Condition 27 of 8/15/2011 permit amended 12/20/2018)

5. **Emission Controls – Flake Finishing Lines 1-8** - VOC emissions from Flake Finishing Lines 1-8 (No. 9 Pan Charge Tank, No. 8 Blend Tank, Precipitating Acid Vats No. 7, 17 & 18, Weak Acid Side Stream Vat 39, Continuous Precipitators (8), Slurry Tank, Hardening Tanks (8), Vibrating Screens (8), Vats 33, 34 & 35, Clean Acid Vats 36, 40 & 41, “A” Washers (8) and Acid Dope Retention Tanks 1-7) shall be controlled by the Department 9 Acid Vent Scrubber (1D9SC001C1). The scrubber shall be provided with adequate access for inspection and shall be in operation when any emission unit that it is controlling is operating.
(9VAC5-80-110 and Condition 28 of 8/15/2011 permit amended 12/20/2018)

6. Process particulate emissions from the CA flake production operations shall be less than or equal to 71.0 lbs/hr.
(9VAC5-80-110 and 9 VAC 5-40-260.A)

7. **Production** - The combined production of cellulose acetate flake from all eight finishing lines shall not exceed 3,576.0 units per year, calculated monthly as the sum of each consecutive 12-month period.
(9VAC5-80-110 and Condition 35 of 8/15/2011 permit amended 12/20/2018)

8. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, all of the equipment listed in Section II under Department 9 shall be operated in compliance with the requirements of 40 CFR Part 63, Subpart FFFF.
(9VAC5-80-110 and Condition 36 of 8/15/2011 permit amended 12/20/2018)

9. **Process Emission Limits - Flake Bins** - Emissions from the operation of each of the two fabric filters (1D1FB001S1 & 1D1FB002S1) controlling particulate emissions from the Flake Bins 1-64 and 65-96 shall not exceed the limits specified below:

Particulate Matter (PM) 0.02 gr/dscf 1.6 tons/yr

PM-10 0.02 gr/dscf 1.3 tons/yr

The annual emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Conditions V.A.7 and V.C.1.

(9VAC5-80-110 and Condition 37 of 8/15/2011 permit amended 12/20/2018)

10. **Process Emission Limits - Flake Screws** - Emissions from the operation of each of the two fabric filters (1D1BH001S1 & 1D1BH002S1) controlling particulate emissions from the Flake Screws shall not exceed the limits specified below:

Particulate Matter (PM) 0.02 gr/dscf 0.9 tons/yr

PM-10 0.02 gr/dscf 0.6 tons/yr

The annual emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Conditions V.A.7 and V.C.1.

(9VAC5-80-110 and Condition 38 of 8/15/2011 permit amended 12/20/2018)

- 11. Process Emission Limits - Flake Silos** - Emissions from the operation of the six fabric filters controlling particulate emissions from the Flake Silos shall not exceed the limits specified below:

Particulate Matter (PM) 0.02 gr/dscf (each) 1.7 tons/yr (all)

PM-10 0.02 gr/dscf (each) 1.2 tons/yr (all)

The annual emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Conditions V.A.7 and V.C.1.

(9VAC5-80-110 and Condition 39 of 8/15/2011 permit amended 12/20/2018)

- 12. Process Emission Limits - Flake Dryers 1-8** – Emissions from the operation of the wet scrubbers controlling emissions from Flake Dryers 1-8 shall not exceed the limits specified below:

Particulate Matter (PM) 1.1 lbs/hr (each dryer) 24.6 tons/yr (all)

PM-10 1.1 lbs/hr (each dryer) 24.6 tons/yr (all)

Volatile Organic Compounds 0.1 lbs/hr (each Dryers 1-6 & 8) 2.2 tons/yr (all)

Volatile Organic Compounds 0.17 lbs/hr (Dryer 7)

The annual emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Conditions V.A.7 and

V.C.1.

(9VAC5-80-110 and Condition 40 of 8/15/2011 permit amended 12/20/2018)

- 13. Process Emission Limits - Department 9 Acid Vent Scrubber** - Emissions from the operation of the Department 9 Acid Vent Scrubber (1D9SC001S1) shall not exceed the limits specified below:

Volatile Organic Compounds	1.8 lbs/hr	8.0 tons/yr
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The annual emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Conditions V.A.7 and V.C.1.

(9VAC5-80-110 and Condition 41 of 8/15/2011 permit amended 12/20/2018)

- 14. Visible Emission Limit – Flake Dryer 1** - Visible emissions from the wet scrubbers controlling particulate emissions from Flake Dryer 1 shall not exceed 5 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction. (9VAC5-80-110 and Condition 42 of 8/15/2011 permit amended 12/20/2018)

- 15. Visible Emission Limit – Flake Dryer 2 & 6** - Visible emissions from the wet scrubbers controlling particulate emissions from Flake Dryers 2 and 6 shall not exceed 5 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction. (9VAC5-80-110 and Condition 43 of 8/15/2011 permit amended 12/20/2018)

- 16. Visible Emission Limit – Flake Dryers 3, 4, 5, 7 & 8** – Visible emissions from the wet scrubbers controlling particulate emissions from Flake Dryers 3, 4, 5, 7 and 8 shall not exceed 5 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction. (9VAC5-80-110 and Condition 44 of 8/15/2011 permit amended 12/20/2018)

B. Monitoring

- 1. Monitoring Devices - Flake Bins, Flake Screws & Flake Silos** - The fabric filters controlling particulate emissions from Flake Bins 1-64 and 65-96, Flake Screws and Flake Silos 1-5 shall be equipped with devices to continuously measure the pressure drop across each fabric filter.

Each monitoring device shall be installed within 180 days of the approved date of the

8/15/2011 State Operating Permit, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the control device is operating.

(9VAC5-80-110 and Condition 29 of 8/15/2011 permit amended 12/20/2018)

2. **Monitoring Device Observation - Flake Bins, Flake Screws & Flake Silos** – To ensure good performance, the control monitoring devices in Condition V.B.1 shall be observed by the permittee with a frequency of not less than once per week that the fabric filters operated. The permittee shall keep a log of the observations or electronically record measurements from the control monitoring device.
(9VAC5-80-110 and Condition 30 of 8/15/2011 permit amended 12/20/2018)
3. **Monitoring Devices – Flake Dryers** - The scrubbers controlling particulate and VOC emissions from Flake Dryers 1-8 shall be equipped with devices to continuously measure the liquid flow through each scrubber.
Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the control device is operating.
(9VAC5-80-110 and Condition 31 of 8/15/2011 permit amended 12/20/2018)
4. **Monitoring Device Observation – Flake Dryers** – To ensure good performance, the control monitoring devices in Condition V.B.3 shall be observed by the permittee with a frequency of not less than once per week that the scrubber is in operation. The permittee shall keep a log of the observations or electronically record measurements from the control monitoring device.

Operational ranges for the monitored parameters shall be established to provide a reasonable assurance of compliance. These operational ranges for the monitored parameters shall be derived from stack test data, vendor certification, operational history and visual inspections, the combination of which demonstrate the proper operation of the equipment in compliance. The facility shall maintain records documenting the establishment of the operational ranges for the monitored parameters.

(9VAC5-80-110 and Condition 32 of 8/15/2011 permit amended 12/20/2018)

5. **Monitoring Devices - Acid Vent Scrubber** - The Department 9 Acid Vent Scrubber (1D9SC001S1) shall be equipped with devices to continuously measure the liquid flow and differential pressure through the scrubber.
Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the

manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the control device is operating.

(9VAC5-80-110 and Condition 33 of 8/15/2011 permit amended 12/20/2018)

6. **Monitoring Device Observation - Acid Vent Scrubber** –To ensure good performance, the control monitoring devices in Condition V.B.5 shall be observed by the permittee with a frequency of not less than once per week. The permittee shall keep a log of the observations or electronically record measurements from the control monitoring device.

Operational ranges for the monitored parameters shall be established to provide a reasonable assurance of compliance. These operational ranges for the monitored parameters shall be derived from stack test data, vendor certification, operational history and visual inspections, the combination of which demonstrate the proper operation of the equipment in compliance. The facility shall maintain records documenting the establishment of the operational ranges for the monitored parameters.

(9VAC -80-110 and Condition 34 of 8/15/2011 permit amended 12/20/2018)

7. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the fabric filters, scrubbers, Department 9 Acid Vent Scrubber and process equipment which affect such emissions:
- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance;
 - b. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the control devices and maintain records of inspection results;
 - c. Maintain an inventory of spare parts;
 - d. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum; and
 - e. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance, inspections and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request. (9VAC5-80-110 and Condition 46 of 8/15/2011 permit amended 12/20/2018)

C. Recordkeeping

- 1. On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
 - a. Annual production of cellulose acetate flake from all eight finishing lines to verify compliance with the limit in Condition V.A.7. Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
 - b. Annual Particulate Matter and PM-10 emissions calculations and all supporting documentation for emissions from the fabric filters controlling emissions from Flake Bins 1-64, Flake Bins 65-96, Flake Screws and Flake Dryers (1-8) using calculation methods approved by the Blue Ridge Regional Office to verify compliance with the emissions limitations in Conditions V.A.9, V.A.10 and V.A.12. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
 - c. Annual VOC emissions calculations and all supporting documentation for emissions from the scrubber controlling emissions from the Flake Dryers using calculation methods approved by the Blue Ridge Regional Office to verify compliance with the emissions limitations in Condition V.A.12. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
 - d. Annual VOC emissions and all supporting documentation for emissions from the Department 9 Acid Vent Scrubber (1D9SC001S1) using calculation methods approved by the Blue Ridge Regional Office to verify compliance with the emissions limitations in Condition V.A.13. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
 - e. Operation and control device monitoring records for the air pollution control devices as required in Conditions V.B.2, V.B.4 and V.B.6.
 - f. Scheduled and unscheduled maintenance, operator training and maintenance/inspection reports as required by Condition V.B.7.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9VAC5-50-50, 9VAC5-80-110 and Condition 45 of 8/15/2011 permit amended

12/20/2018 #2)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9VAC5-50-30 and 9VAC5-80-110)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9VAC5-80-110)

VI. Department 10 - Acid Recovery

A. Limitations

1. **Emission Controls - Stripping Still #2** – VOC and CO emissions from Stripping Still #2 (1AMSS001S1) shall be controlled by combustion of the vent streams in the Ketene Furnaces. The vent streams shall be introduced in the flame zones of the furnaces as stated in Condition VII.A.4. The Ketene Furnaces shall be provided with adequate access for inspection and shall be in operation when Stripping Still #2 is operating.
(9VA 5-80-110 and Condition 47 of 8/15/2011 permit amended 12/20/2018)
2. **Emission Controls - Acid Recovery Scrubber System** – VOC emissions from the Acid Recovery Department (Extraction Towers (12), Vaporizers (11), Main Stills (7), Effluent Stills (5), IPOH Separator, IPOH Still, Solvent Separator Tanks (6), Clearing Tanks (12), Effluent Feed Tanks (4), Main Feed Tanks (4), IPOH Reflux Tank, Emergency Tank, Measuring Tank, Solvent Feed Tanks (4), Sparge Tanks (4), Sparge Condensers (5), Sample Drain Tanks (4) and Pure Still (55 gallon drum)) shall be controlled by the Acid Recovery Scrubber System (1ARSC001C1, 1ARSC001C2, 1ARSC002C1, 1ARSC201C1, 1ARSC202C1, 1ARSC301C1 & 1ARSC302C1). The Acid Recovery Scrubber System shall be provided with adequate access for inspection and shall be in operation when the Acid Recovery Department is operating.
(9VAC5-80-110 and Condition 48 of 8/15/2011 permit amended 12/20/2018)
3. **Control Efficiency** – The Acid Recovery Scrubber System (1ARSC001C1, 1ARSC001C2, 1ARSC002C1, 1ARSC201C1, 1ARSC202C1, 1ARSC301C1 & 1ARSC302C1) shall maintain a control efficiency for VOC of no less than 95.0 percent, to be demonstrated by stack test.
(9VAC5-80-110 and Condition 49 of 8/15/2011 permit amended 12/20/2018)

4. **Processing** - The facility shall not recover weak acid from off-site sources.
(9VAC5-80-110 and Condition 52 of 8/15/2011 permit amended 12/20/2018)
5. **Processing** - The No. 6 and No. 7 Main Stills shall process no more than 140,000 pounds of distillation feed per hour each, calculated once every eight hour shift as the average hourly feed during that shift.
(9VAC5-80-110 and Condition 53 of 8/15/2011 permit amended 12/20/2018)
6. **Processing** - The Stripping Still #2 (1AMSS001S1) shall process no more than 8,760 tons of distillation feed per year, as indicated by the flow meter located at the inlet feed line.
(9VAC5-80-110 and Condition 54 of 8/15/2011 permit amended 12/20/2018)
7. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, Tank 113 (1ARTK113S1), Tank 116 (1ARTK116S1), Tank 117 (1ARTK117S1), Tank 105 and Tank 107 shall be operated in compliance with the requirements of 40 CFR Part 60, Subpart Kb.
(9VAC5-80-110 and Condition 55 of 8/15/2011 permit amended 12/20/2018)
8. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, Stripping Still #2 (1AMSS001S1) shall be operated in compliance with the requirements of 40 CFR Part 60, Subparts VV, NNN and 40 CFR 63, Subpart FFFF.
(9VAC5-80-110 and Condition 55 of 8/15/2011 permit amended 12/20/2018)
9. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the Extraction Towers (14), Vaporizers (13), Main Stills (7), Effluent Stills (5), IPOH Separator, IPOH Still, Solvent Separator Tank, Clearing Tanks (13), Effluent Feed Tanks (4), IPOH Reflux Tank, Measuring Tank, Solvent Feed Tanks (4), Sparge Tanks (4), Sparge Condensers (5), Sample Drain Tanks (4) and Pure Still (55 gallon drum) shall be operated in compliance with the requirements of 40 CFR 63, Subpart FFFF.
(9VAC5-80-110 and Condition 56 of 8/15/2011 permit amended 12/20/2018)
10. **Requirements by Reference** – The isopropanol reactor (Source ID No. 1ARRC001S1) is subject to the provisions of 40 CFR Part 60, New Source Performance Standards, Subparts A & RRR. Currently, the affected facility complies with NSPS Subpart RRR under 40 CFR 60.700(c)(4), the low flow exemption. Because there is no vapor stream from this reactor, the reactor is exempt from Subpart RRR 40 CFR 60.704(g). If any change in equipment process operation increases the operating vent stream flow rate above the low flow exemption, then the isopropanol reactor must begin compliance with the requirements set forth in 40 CFR 60.702.
(9VAC5-50-400, 9VAC5-50-410 & 9VAC5-80-110)

- 11. Requirements by Reference** – The emission sources in the Acid Recovery Department are subject to the provisions of 40 CFR Part 63 Subpart F. This process unit does not use as a reactant or manufacture as a product or co-product any organic HAPs from Table 2 of 40 CFR Part 63 Subpart F. Therefore, 40 CFR 63.103(e) states that this process unit shall comply only with the requirements of 63.103(e) and that this process unit is not required to comply with the provisions of 40 CFR 63 Subpart A.
(9VAC5-60-90, 9VAC5-60-100 & 9VAC5-80-110)

- 12. Process Emission Limits** - Emissions from the operation of Acid Recovery Scrubber System (1ARSC001C1, 1ARSC001C2, 1ARSC002C1, 1ARSC201C1, 1ARSC202C1, 1ARSC301C1 & 1ARSC302C1) shall not exceed the limits specified below:

Volatile Organic Compounds	40.9 tons/yr
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The annual emissions are derived from the estimated overall emission contribution from the operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limit may be determined as stated in Conditions V.A.7 and VI.A.3.
(9VAC5-80-110 and Condition 57 of 8/15/2011 permit amended 12/20/2018)

- 13. Process Emission Limits** - Emissions from the operation of the Building 10 Vat Yard (1ARSC004S1) shall not exceed the limits specified below:

Volatile Organic Compounds	19.0 lbs/hr	83.1 tons/yr
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The annual emissions are derived from the estimated overall emission contribution from the operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limit may be determined as stated in Conditions V.A.7 and VI.C.1.
(9VAC5-80-110 and Condition 58 of 8/15/2011 permit amended 12/20/2018)

B. Monitoring

- 1. Monitoring Devices - Acid Recovery Scrubber System** - The Acid Recovery Scrubber System (1ARSC001C1, 1ARSC001C2, 1ARSC002C1, 1ARSC201C1, 1ARSC202C1, 1ARSC301C1 & 1ARSC302C1) shall be equipped with devices to continuously measure the liquid flow and differential pressure through the scrubber. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when

the control device is operating.

(9VAC5-80-110 and Condition 50 of 8/15/2011 permit amended 12/20/2018)

2. **Monitoring Device Observation - Acid Recovery Scrubber System** – To ensure good performance, the control monitoring devices used to continuously measure the liquid flow rate and differential pressure through the Acid Recovery Scrubber System shall be observed by the permittee with a frequency of not less than once per day. The permittee shall keep a log of the observations or electronically record measurements from the control monitoring device.
(9VAC5-80-110 and Condition 51 of 8/15/2011 permit amended 12/20/2018)
3. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the Acid Recovery Scrubber System (1ARSC001C1, 1ARSC001C2, 1ARSC002C1, 1ARSC201C1, 1ARSC202C1, 1ARSC301C1 & 1ARSC302C1) and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the control devices and maintain records of inspection results.
 - c. Maintain an inventory of spare parts.
 - d. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - e. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance, inspections and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9VAC5-80-110 and Condition 61 of 8/15/2011 permit amended 12/20/2018)

C. Recordkeeping

1. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional

Office. These records shall include, but are not limited to:

- a. Annual plant feed to the main stills and solvent use in the Acid Recovery Department using calculation methods approved by the Blue Ridge Regional Office. Annual amounts shall be calculated monthly as the sum of each consecutive 12-month period.
- b. Annual VOC emissions and all supporting documentation for emissions from the Acid Recovery Scrubber System (1ARSC001C1, 1ARSC001C2, 1ARSC002C1, 1ARSC201C1, 1ARSC202C1, 1ARSC301C1 & 1ARSC302C1) and Building 10 Vat Yard (1ARSC004S1) using calculation methods approved by the Blue Ridge Regional Office to verify compliance with the emissions limitations in Condition VI.A.12 and VI.A.13. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
- c. Operation and control device monitoring records for the air pollution control device as required in Condition VI.B.2.
- d. Scheduled and unscheduled maintenance, operator training and maintenance/inspection reports as required by Condition VI.B.3.
- e. The time at which each start-up of the No. 6 or No. 7 distillation column begins and ends.
- f. The reason for each shutdown of the No. 6 or No. 7 distillation column.
- g. Scheduled and unscheduled maintenance and operator training for the Acid Recovery Scrubber System.
- h. Keep up-to-date, readily accessible records to indicate that the vent stream flow rate from the isopropanol reactor is less than 0.011 m³/min.
- i. Keep up-to-date, readily accessible records of any change in equipment process operation that increases the operating vent stream flow rate of the isopropanol reactor (Source ID No. 1ARRC001S1), including a measurement of the new vent stream flow rate. This measurement will be conducted in accordance with standard reference test methods 2, 2A, 2C and 2D as required pursuant to 40 CFR 60.705(h).

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9VAC5-50-50, 9VAC5-80-110 and Condition 59 of 8/15/2011 SOP amended 12/20/2018)

2. In accordance with 40 CFR 63.103(e), the permittee shall retain information, data and

analysis used to determine that the Acid Recovery Department does not use as a reactant or manufacture as a product or co-product an organics HAP, or when requested by DEQ, demonstrate that the Acid Recovery Department does not use as a reactant or manufacture as a product or co-product any organic hazardous air pollutant.

(9VAC5-60-90, 9VAC5-60-100 and 9VAC5-80-110)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9VAC5-50-30 and 9VAC5-80-110)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9VAC5-80-110)
3. Compliance tests may be required for volatile organic compounds from the stripping still (1AMSS001S1) vent manifold condenser to determine compliance with the requirements of 40 CFR Part 60 Subpart NNN. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations, the test methods and procedures contained in each applicable section or subpart in 9 VAC 5-50-410 and 9 VAC 5-60-70.
(9VAC5-50-400, 9VAC5-50-410 and 9VAC5-80-110)
4. A performance test must be completed as soon as possible after the change and no later than 180 days after any change in equipment or process operation of the isopropanol reactor (Source ID No. 1ARRC001S1) that increases the operating vent stream flow rate above the low flow exemption level in 40 CFR 60.700(c)(4), including a measurement of the new vent stream flow rate, as recorded under 40 CFR 60.705(i) within the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and ETOC (measured emission rate of TOC, kg/hr (lb/hr)). The performance test is subject to the requirements of 40 CFR 60.8.
(9VAC5-50-400, 9VAC5-50-410 and 9VAC5-80-110)

E. Reporting

1. Report to Blue Ridge Regional Office and to the EPA, Region 3, NSPS Compliance Coordinator, as soon as possible after the change and no later than 180 days after the after the change, any change in equipment or process operation of the isopropanol reactor (Source ID No. 1ARRC001S1) that increases the operating vent stream flow rate above the low flow exemption level in 40 CFR 60.700(c)(4), including a

measurement of the new vent stream flow rate, as recorded under 40 CFR 60.705(i). These reports may be submitted either in conjunction with semiannual reports or as a single separate report.

(9VAC5-50-400, 9 VAC 5-50-410 and 9VAC5-80-110)

2. NSPS Subpart NNN Excess Emissions Reports – The permittee shall submit semi-annual written reports to the Blue Ridge Regional Office and to the EPA, Region 3, NSPS Compliance Coordinator. The time periods to be addressed are January 1 to June 30 and July 1 to December 31. All reports shall be postmarked by the 60th day following the reporting period and shall contain the information required by 40 CFR 60.4.

(9VAC5-50-50, 40 CFR 60.665 and 9VAC5-80-110)

VII. Anhydride Manufacturing

A. Limitations

1. **Emission Controls** – VOC and CO emissions from the process vents in the acetic anhydride production process (i.e., (a) Light Ends Column, and (b) Decomp gas from adsorbers, scrubbers and color reactor) shall be controlled by combustion in the Ketene Furnaces. The vent streams shall be introduced in the flame zones of the furnaces. The Ketene Furnaces shall be provided with adequate access for inspection and shall be in operation when any emission unit they control is operating.
(9VAC5-80-110 and Condition 62 of 8/15/2011 permit amended 12/20/2018)
2. **Control Efficiency** – The Ketene Furnace combustion chamber shall maintain a control efficiency for VOC of no less than 99.9 percent, on a mass basis or shall control volatile organic compounds from the process vents to a concentration of no more than 20 ppmv, on a dry basis corrected to 3 percent oxygen.
(9VAC5-80-110 and Condition 63 of 8/15/2011 permit amended 12/20/2018)
3. **Production** - The production of acetic anhydride shall not exceed 390 million pounds per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 68 of 8/15/2011 permit amended 12/20/2018)
4. **Fuel** - The approved fuels for the Ketene Furnaces are natural gas, and auxiliary fuels vented from the acetic anhydride manufacturing process (i.e., (a) Light Ends Column gas, and (b) Decomp gas from adsorbers, scrubbers and color reactor), and the vent streams from the Stripping Still #2 (1ANSS001S1) located in the Department 10 - Acid Recovery as required by Condition VI.A.1. A change in the fuel may require a permit to modify and operate.

(9VAC5-80-110 and Condition 69 of 8/15/2011 permit amended 12/20/2018)

5. **Fuel Throughput** - The Ketene Furnaces shall consume no more than 600 million standard cubic feet of natural gas per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 70 of 8/15/2011 permit amended 12/20/2018)
6. **Nitrogen Blanketing** – The permittee shall not use nitrogen blanket on any processes vented to the Ketene Furnaces. A permit may be required for the permittee to use nitrogen blanketing on any processes vented to the Ketene Furnaces, including the auxiliary fuels identified in Condition VII.A.4.
(9VAC5-80-110 and Condition 71 of 8/15/2011 permit amended 12/20/2018)
7. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the Anhydride Manufacturing Process Unit shall be operated in compliance with the applicable requirements of 40 CFR 63, Subpart F and H.
(9VAC5-80-110 and Condition 73 of 8/15/2011 permit amended 12/20/2018)
8. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the Ketene Furnaces 1 East, 1 West, 2 East, 2 West shall be operated in compliance with the applicable requirements of 40 CFR 63, Subpart DDDDD.
(9VAC5-80-110 and Condition 73 of 8/15/2011 permit amended 12/20/2018)
9. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the Brine system shall be operated in compliance with the applicable requirements of 40 CFR 63, Subpart EEEE.
(9VAC5-80-110 and Condition 73 of 8/15/2011 permit amended 12/20/2018)
10. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the Anhydride Manufacturing Process Unit shall be operated in compliance with the applicable requirements of 40 CFR Part 60, Subpart VV.
(9VAC5-80-110 and Condition 74 of 8/15/2011 permit amended 12/20/2018)
11. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the Ketene Furnaces 1 East, 1 West, 2 East and 2 West shall be operated in compliance with the applicable requirements of 40 CFR Part 60, Subpart RRR.
(9VAC5-80-110 and Condition 74 of 8/15/2011 permit amended 12/20/2018)
12. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the Adsorbers, Scrubbers shall be operated in compliance

with the requirements of 40 CFR Part 60, Subpart RRR.
(9VAC5-80-110 and Condition 74 of 8/15/2011 permit amended 12/20/2018)

13. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the Light Ends Column shall be operated in compliance with the requirements of 40 CFR Part 60, Subpart NNN.
(9VAC5-80-110 and Condition 74 of 8/15/2011 permit amended 12/20/2018)

14. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement or where alternative monitoring has been approved according to 40 CFR 60.13(i) and the light ends distillation column shall be operated in compliance with the requirements of 40 CFR 60, Subpart NNN (Volatile Organic Compound Emissions from Synthetic Organic Chemicals Manufacturing Industry Distillation Operations). Alternative monitoring that was approved according to 40 CFR 60.13(i) allows the distillation columns to comply with the provisions of paragraphs (c)(1), (c)(1)(i), and (c)(1)(ii) of section 60.703 of NSPS Subpart RRR instead of the provisions of paragraphs (c)(1) and (c)(2) of section 60.663 of NSPS Subpart NNN.
(9VAC5-50-400, 9VAC5-50-410, 9VAC5-80-110 and EPA Region III Variance Approval)

15. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the Brine System shall be operated in compliance with the requirements of 40 CFR Part 60, Subpart VV.
(9VAC5-80-110 and Condition 74 of 8/15/2011 permit amended 12/20/2018)

16. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the Color Reactor shall be operated in compliance with the requirements of 40 CFR Part 60, Subpart RRR.
(9VAC5-80-110 and Condition 74 of 8/15/2011 permit amended 12/20/2018)

17. **Process Emission Limits** - The hourly emissions from the operation of each Ketene Furnace shall not exceed the limits specified below in paragraphs “a” and “b”; and the total combined emissions from the Ketene Furnaces shall not exceed the annual limits specified below in paragraph “c”.

- a. After the effective date of the facility’s modified Title V permit, to incorporate the changes to the permit conditions increasing the production and fuel throughput limits, each Ketene Furnace:

Particulate Matter (PM)	0.14 lbs/hr	(9VAC5-50-260)
PM ₁₀	0.14 lbs/hr	(9VAC5-50-260)

PM _{2.5}	0.14 lbs/hr	
Nitrogen Oxides (as NO ₂)	2.5 lbs/hr	(9VAC5-50-260)
Carbon Monoxide	1.51 lbs/hr	(9VAC5-50-260)
Volatile Organic Compounds	0.21 lbs/hr	(9VAC5-50-260)

b. For each Ketene Furnace modified as stated in Condition VII.G.1.b:

Particulate Matter (PM)	0.15 lbs/hr	(9VAC5-50-260)
PM ₁₀	0.15 lbs/hr	(9VAC5-50-260)
PM _{2.5}	0.15 lbs/hr	
Nitrogen Oxides (as NO ₂)	2.5 lbs/hr	(9VAC5-50-260)
Carbon Monoxide	1.6 lbs/hr	(9VAC5-50-260)
Volatile Organic Compounds	0.23 lbs/hr	(9VAC5-50-260)

c. The total combined emissions from the four Ketene Furnaces:

Particulate Matter (PM)	2.4 tons/yr	(9VAC5-50-260)
PM ₁₀	2.4 tons/yr	(9VAC5-50-260)
PM _{2.5}	2.4 tons/yr	
Nitrogen Oxides (as NO ₂)	39.0 tons/yr	(9VAC5-50-260)
Carbon Monoxide	25.6 tons/yr	(9VAC5-50-260)
Volatile Organic	3.6 tons/yr	(9VAC5-50-260)

The annual emissions are derived from the estimated overall emission contribution from the operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual

emission limits may be determined as stated in Conditions VII.A.3, VII.A.5 and VII.C.1.

(9VAC5-80-110 and Condition 75 of 8/15/2011 permit amended 12/20/2018)

18. **Visible Emissions** – Visible emissions from the acetic anhydride process shall not exceed five percent (5%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed ten percent (10%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9VAC5-50-80, 9VAC5-50-260 and Condition 76 of 8/15/2011 permit amended 12/20/2018)

19. **Process Emission Limits** – Process particulate emissions from the Anhydride Manufacturing operations, other than from fuel burning equipment, shall be less than or equal to 6.8 lbs/hr.

(9VAC5-40-260.A)

B. Monitoring

1. **Monitoring Devices** - The vent valves to the atmosphere on the light ends/process vent gas header and the decomposition gas header shall each be equipped with a flow indicator that provides a record of flow of the gases at these locations at least once per fifteen minute period. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the acetic anhydride process is operating.

(9VAC5-80-110 and Condition 64 of 8/15/2011 permit amended 12/20/2018)

2. **Monitoring Devices** – The Ketene Furnace combustion chamber of each Ketene Furnace shall be equipped with a device to monitor and record temperature to demonstrate compliance with Condition VII.B.3. Temperature readings shall be recorded at least every 15 minutes.

(9VAC5-80-110 and Condition 65 of the 8/15/2011 permit amended 12/20/2018)

3. **Operating Parameters** – Except for periods of startup, as defined in Condition VII.B.4, each Ketene Furnace shall operate* within the minimum and maximum operating temperature range** that demonstrates compliance with the VOC, CO and NOx limitations in Conditions VII.A.2 and VII.A.17 as established during the most recent of the following testing events:

- a. Initial performance test required by Condition VII.D.1.

- b. Subsequent compliance testing per Condition VII.D.3.
- c. Retesting as a result of an operating temperature deviation as required by Condition VII.B.6.

Records are required to be maintained as outlined in Condition VII.C.1.

*“Operating” is defined as when acetic anhydride is being produced by the Ketene Furnace, and/or combustion gases (i.e., (a) Light Ends Column gas, and (b) Decom gas from adsorbers, scrubbers and color reactor), and the vent streams from the Stripping Still #2 (1ANSS001S1) located in the Department 10 - Acid Recovery) are being controlled by the Ketene Furnace.

** 40 CFR Part 60 Subpart RRR §60.705(c)(3) requires each owner or operator to keep up-to-date, readily accessible continuous records of all 3-hour periods of operation during which the average combustion temperature was more than 28 °C (50 °F) below the average combustion temperature during the most recent performance test for 40 CFR Part 60 Subpart RRR. This requirement applies whenever Decom gas is being controlled by the Ketene Furnace (see Condition VII.A.16).

(9VAC5-80-110 and Condition 66 of the 8/15/2011 permit amended 12/20/2018)

4. **Operating Parameters** – The startup of each Ketene Furnace is defined as the following:

- a. Light Ends Column gas and vent streams from the Stripping Still #2 (1ANSS001S1) located in Department 10 – Acid Recovery shall not be introduced into a Ketene Furnace during startup.
- b. The period of operation beginning with the combustion of any fuel in a particular furnace and ending when the combustion chamber temperature of the particular furnace reaches the minimum temperature established in accordance with Condition VII.B.3.
- c. The combined hours of operation for the four Ketene Furnaces while (1) in startup and (2) with Decom gas being controlled shall not exceed 100 hours per 12-month period.
- d. The annual emission limits in Condition VII.A.17 apply at all periods of Ketene Furnace operation.

(9VAC5-80-110 and Condition 67 of the 8/15/2011 permit amended 12/20/2018)

5. **Operating Temperature** – The minimum and maximum operating temperature

range for each Ketene Furnace shall be established during stack testing events as required by Condition VII.B.3. The permittee may elect to establish an expanded operating temperature range upon DEQ's approval of an engineering analysis performed and submitted by the permittee. The format of and the procedures to be used in the engineering analysis shall be submitted to the Blue Ridge Regional Office at least 30 days prior to the engineering analysis being performed. The completed engineering analysis, if performed, shall be submitted to the Blue Ridge Regional Office. The permittee is required to be in compliance with the temperature range established in Condition VII.B.3 absent approval of an expanded operating temperature range.

(9VAC5-80-110 and Condition 79 of the 8/15/2011 permit amended 12/20/2018)

6. **Operating Temperature** – If any of the three-hour Ketene Furnace combustion chamber temperature readings is higher than the maximum operating temperature or lower than the minimum operating temperature established per Condition VII.B.3 or the expanded temperature range as addressed per Condition VII.B.5, Celanese shall report the event as a deviation to the Blue Ridge Regional Office; and testing shall be performed according to the testing requirements contained in Condition VII.D.1.
(9VAC5-80-110 and Condition 72 of the 8/15/2011 permit amended 12/20/2018)
7. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the Ketene Furnaces and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the control devices and maintain records of inspection results.
 - c. Maintain an inventory of spare parts.
 - d. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - e. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance, inspections and training shall be maintained on site for a

period of five years and shall be made available to DEQ personnel upon request.
(9VAC5-80-110 and Condition 87 of the 8/15/2011 permit amended 12/20/2018)

C. Recordkeeping

1. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
 - a. Annual production of acetic anhydride, calculated monthly as the sum of each consecutive 12 month period to verify compliance with the limitation in Condition VII.A.3.
 - b. Annual consumption of natural gas in the Ketene Furnaces, calculated monthly as the sum of each consecutive 12-month period to verify compliance with the limitation in Condition VII.A.5.
 - c. Records of the times when the light ends/process vent gas stream or the decomposition gas stream is diverted to the atmosphere from the respective vent headers.
 - d. Results of all stack tests, visible emission evaluations and performance evaluations.
 - e. Annual emission calculations and all supporting documentation for emissions of particulate matter, PM-10, nitrogen oxides, carbon monoxide and volatile organic compounds from the Ketene Furnaces, using calculation methods approved by the Blue Ridge Regional Office to verify compliance with the emissions limitations in Condition VII.A.17.
 - f. Scheduled and unscheduled maintenance and operator training.
 - g. The annual throughput of feed to distillation column (stripping still 1AMSS001S1), calculated monthly as the sum of each consecutive 12-month period.
 - h. Operating records of the distillation column (Stripping Still #2 - 1AMSS001S1) and Ketene Furnaces necessary to demonstrate that one or more of the furnaces are in operation at all times the distillation column is in operation.
 - i. Operation and control device monitoring records for air pollution control devices as required in Condition VII.B.1.
 - j. The following information for each Ketene Furnace if changes to the combustion

air, as identified in Condition VII.E.1 is made:

- (i) The number and fan type (induced or forced).
 - (ii) The rated fan size (acfm) of each fan.
 - (iii) The maximum combustion air flow to the combustion chamber.
- k. The maximum cubic feet per hour of natural gas to each Ketene Furnace after the modification (i.e., replacement of the orifice in the natural gas supply line).
- l. For the emissions testing and control efficiencies demonstrations required by Condition VII.D.1:
- (i) The production of acetic anhydride
 - (ii) The consumption of natural gas.
 - (iii) The consumption of each of the following process vent gases: Light ends, decomp and stripping still.
 - (iv) A demonstration that the Ketene Furnace is under negative pressure, if there is a change in the combustion air flow to a Ketene Furnace (i.e., fans are replaced).
- m. Both the current and previous established minimum and maximum chamber operating temperature for each Ketene Furnace combustion chamber temperature required by Condition VII.B.3, or if revised per Condition VII.B.6.
- n. Records of the combustion chamber operating temperature for each Ketene Furnace.
- o. The engineering analysis addressed by Condition VII.B.5 if used to revise the maximum and minimum temperature range established by Condition VII.B.3.
- p. Records to show compliance with Condition VII.B.4.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9VAC5-50-50, 9VAC5-80-110 and Condition 77 of the 8/15/2011 permit amended 12/20/2018)

D. Testing

1. **Stack Tests** – Performance tests shall be conducted as stated below:

- a. To determine compliance with the Nitrogen Oxides, Carbon Monoxide and Volatile Organic Compounds limits in Condition VII.A.17 and the control efficiency limit in Condition VII.A.2 for each Ketene Furnace. The tests for Nitrogen Oxides, Carbon Monoxide and Volatile Organic Compounds shall be conducted concurrently when determining maximum and minimum operating temperatures and/or when determining compliance with the emission limits in Condition VII.A.17 and the control efficiency limit in Condition VII.A.2. The tests shall be performed, reported and demonstrate compliance within 90 days of the effective date of this permit.
- b. If a Ketene Furnace is modified by any of the actions stated in Condition VII.G.1, to determine compliance with the Nitrogen Oxides, Carbon Monoxide and Volatile Organic Compounds emission limits in Condition VII.A.17.b and the control efficiency limit in Condition VII.A.2 for the modified Ketene Furnace. The tests for Nitrogen Oxides, Carbon Monoxide and Volatile Organic Compounds shall be conducted concurrently when determining maximum and minimum operating temperatures and/or when determining compliance with the emission limits in Condition VII.A.17.b and the control efficiency limit in Condition VII.A.2. The tests shall be performed, reported and demonstrate compliance within 60 days of any of the actions stated in Condition VII.G.1.

Maximum and minimum operating temperatures as required in Condition VII.B.3 shall be established during each required performance test and reported to the Blue Ridge Regional Office within 30 days after test completion.

Tests shall be conducted and reported and data reduced as set forth in 9VAC5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Blue Ridge Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.

(9VAC5-80-110 Condition 78 of the 8/15/2011 permit amended 12/20/2018)

2. **Visible Emissions Evaluation** – Concurrently with the performance tests in Condition VII.D.1 Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall also be conducted on the Ketene Furnace's stack(s). The details of the tests are to be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed, reported and demonstrate compliance within the corresponding time period stated in Condition VII.D.1.
(9VAC5-80-110 Condition 80 of the 8/15/2011 permit amended 12/20/2018)

3. **Stack Tests** – Upon request by the DEQ, the permittee shall conduct additional performance tests to demonstrate compliance with the emission limits and control efficiency requirements contained in this permit. The details of the performance tests and compliance demonstrations shall be arranged with the Blue Ridge Regional Office.
(9VAC5-80-110 Condition 81 of the 8/15/2011 permit amended 12/20/2018)
4. **Visible Emissions Evaluation** – Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations from the Ketene Furnace stack to demonstrate compliance with the visible emission limits contained in this permit. The details of the tests shall be arranged with the Blue Ridge Regional Office.
(9VAC5-80-110 Condition 82 of the 8/15/2011 permit amended 12/20/2018)
5. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9VAC5-50-30 and 9VAC5-80-110)
6. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9VAC5-80-110)

E. Initial Notification

1. **Initial Notification** – The permittee shall furnish written notification to the Blue Ridge Regional Office of the actual start-up date of each Ketene Furnace after the change allowed by Condition VII.G.1.b within 15 days after such date; including a description of the modification to each Ketene Furnace, which includes the following, if performed:
 - a. Fan type and speed (rpm) for each fan removed.
 - b. Fan type and speed (rpm) for each fan installed.
 - c. Changes to natural gas feed rates, including replacement of the orifice in the natural gas supply line.

(9VAC5-80-110 Condition 83 of the 8/15/2011 permit amended 12/20/2018)

F. Reporting

1. **NSPS Subpart NNN Excess Emissions Reports** – The permittee shall submit semi-annual written reports to the Director, Blue Ridge Regional Office and to the EPA,

Region III, NSPS Compliance Coordinator. The time periods to be addressed are January 1 to June 30 and July 1 to December 31. All Reports shall be postmarked by the 60th day following the reporting period and shall contain the information required in 40 CFR 60.4.

(9VAC5-50-50 and 40 CFR 60.655)

2. **NSPS Subpart RRR Excess Emissions Reports** – The permittee shall submit semi-annual written reports to the Director, Blue Ridge Regional Office and to the EPA, Region III, NSPS Compliance Coordinator. The time periods to be addressed are January 1 to June 30 and July 1 to December 31. All Reports shall be postmarked by the 60th day following the reporting period and shall contain the information required in 40 CFR 60.4.

(9VAC5-50-50 and 40 CFR 60.705)

3. **NSPS Subpart VV Excess Emissions Reports** – The permittee shall submit semi-annual written reports to the Director, Blue Ridge Regional Office and to the EPA, Region III, NSPS Compliance Coordinator. The time periods to be addressed are January 1 to June 30 and July 1 to December 31. All Reports shall be postmarked by the 60th day following the reporting period and shall contain the information required in 40 CFR 60.4.

(9VAC5-50-50 and 40 CFR 60.487)

4. **NESHAP Part 63 Subpart A/F SSMP Report** – When the NESHAP Part 63 Subparts A and F regulations require that a semi-annual startup, shutdown and malfunction report needs to be submitted, the permittee shall submit semi-annual written reports to the Director, Blue Ridge Regional Office and to the EPA, Region III, HON Compliance Coordinator. The time periods to be addressed are January 1 to June 30 and July 1 to December 31. All Reports shall be postmarked by the 60th day following the reporting period and shall contain the information required in 40 CFR 63.10(d)(5).

(9VAC5-50-50 and 40 CFR 63.10(d)(5))

5. **NESHAP Part 63 Subpart H Fugitive Emissions LDAR Report** – The permittee shall submit semi-annual written reports to the Director, Blue Ridge Regional Office and to the EPA, Region III, HON Compliance Coordinator. The time periods to be addressed are January 1 to June 30 and July 1 to December 31. All Reports shall be postmarked by the 60th day following the reporting period and shall contain the information required by 40 CFR 63.182(d) and 40 CFR 63.10(a)(4)(ii).

(9VAC5-50-50 and 40 CFR 63.182(d) and 40 CFR 63.10(a)(4)(ii))

G. Granting Permit

1. **Granting Permit** – This permit for the Anhydride Manufacturing modification project approves the following actions to each or all four Ketene Furnaces:

- a. Increase in the annual production limit of acetic anhydride and the annual throughput limit for consumption natural gas by the four Ketene Furnaces.
- b. The following modifications to any of the four Ketene Furnaces:
 - (i) Changes to the combustion air flow (i.e., increase air flow, replacement of fans) to increase the Btu input of the Ketene Furnace.
 - (ii) Increasing the natural gas hourly natural gas feed rate to the Ketene Furnace (replacement of the orifice in the Ketene Furnace natural gas supply line) to increase the Btu input of the Ketene Furnace.
 - (iii) Increasing the hourly production of acetic anhydride as a result of either paragraphs i or ii.

(9VAC5-80-110 Condition 84 of the 8/15/2011 permit amended 12/20/2018)

VIII. Preparation/Solvent Recovery/Extrusion

A. Limitations

1. **Emission Controls – Transfer of Flake** - Emissions from the transfer of cellulose acetate flake from the live-bottom truck hoppers to the Storage Silos will be vented through the fabric filters on the Storage Silos. The fabric filters shall be provided with adequate access for inspection and shall be in operation during the transfer of cellulose acetate flake.
(9VAC5-80-110 and Condition 89 of 8/15/2011 permit amended 12/20/2018)
2. **Emission Controls – Truck Unloading** - The unloading of cellulose acetate flake at the live-bottom truck unloading facility shall be totally enclosed with emissions vented to fabric filters. The fabric filters shall be provided with adequate access for inspection and shall be in operation during the unloading of cellulose acetate flake.
(9VAC5-80-110 and Condition 90 of 8/15/2011 permit amended 12/20/2018)
3. **Emission Controls – Semco** - Particulate emissions from the Semco flake handling unit shall be controlled by fabric filter. The fabric filter shall be provided with adequate access for inspection and shall be in operation when the Semco flake handling unit is operating.
(9VAC5-80-110 and Condition 91 of 8/15/2011 permit amended 12/20/2018)
4. **Emission Controls – Semiworks** - All particulate emissions from the preparation Semiworks process shall be controlled by a fabric filter. The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be provided with adequate access for inspection and

shall be in operation when the preparation Semiworks process is operating.
(9VAC5-80-110 and Condition 92 of 8/15/2011 permit amended 12/20/2018)

5. **Emission Controls – Building 2** – Particulate emissions from the Building 2 CA Flake Weigh Hopper Receiver (2PRVT011S1) shall be controlled by a fabric filter (2PRVT011C1). The fabric filter shall be provided with adequate access for inspection and shall be in operation when the Building 2 CA Flake Weigh Hopper is operating.
(9VAC5-80-110 and Condition 93 of 8/15/2011 permit amended 12/20/2018)
6. **Emission Controls – Building 2** – Particulate emissions from the Building 2 WOFA Handling (2PRVT017S1) shall be controlled by a fabric filter (2PRVT017C1). The fabric filter shall be provided with adequate access for inspection and shall be in operation when the WOFA Handling is operating.
(9VAC5-80-110 and Condition 94 of 8/15/2011 permit amended 12/20/2018)
7. **Emission Controls – Loadout Facility** – Particulate Matter emissions from the loadout facility shall be controlled by a fabric filter baghouse (2PRVT019C1). The baghouse shall use Gortex bags or equivalent. The baghouse shall be provided with adequate access for inspection and shall be in operation when the loadout facility is operating.
(9VAC5-80-110 and Condition 3 of 2/15/2011 permit)
8. **Fugitive Dust – Loadout Facility** - Fugitive dust controls shall be controlled by the application of asphalt, water, suitable chemicals or equivalent methods approved by the DEQ.
 - a. Dust from haul roads and traffic areas shall be controlled by the application of asphalt, water, suitable chemicals or equivalent methods approved by the DEQ.
 - b. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. These measures shall include paving the entrance road to the facility from the public road. Dirt, product, or raw material spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.

(9VAC5-80-110 and Condition 4 of 2/15/2011 permit)
9. **Throughput – Truck Unloading** - The annual throughput of cellulose acetate flake through the CA live-bottom truck unloading facility shall not exceed 29,120 tons per year, calculated monthly as the sum of each consecutive 12-month period.
(9VAC5-80-110 and Condition 100 of 8/15/2011 permit amended 12/20/2018)
10. **Throughput – Semiworks** - The annual throughput of the preparation Semiworks process shall not exceed 2,190 tons of cellulose acetate, calculated monthly as the

sum of each consecutive 12-month period.
(9VAC5-80-110 and Condition 101 of 8/15/2011 permit amended 12/20/2018)

11. **Throughput –Loadout Facility** - The throughput of cellulose acetate flake at the loadout facility shall not exceed 47,500 tons per year, calculated monthly as the sum of each consecutive 12-month period.
(9VAC5-80-110 and Condition 6 of 2/11/2005 permit)
12. **Processing – Building 2** - The Building 2 CA Flake Weigh Hopper Receiver shall process no more than 1,191 units of flake per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 102 of 8/15/2011 permit amended 12/20/2018)
13. **Process Emission Limits – Truck Unloading** - Emissions from unloading cellulose acetate flake live-bottom trucks shall not exceed the limitations specified below:

Particulate Matter (PM)	0.50 lbs/hr	0.73 tons/yr
PM-10	0.50 lbs/hr	0.73 tons/yr

The annual emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Conditions VIII.A.9 and VIII.C.1.
(9VAC5-80-110 and Condition 103 of 8/15/2011 permit amended 12/20/2018)
14. **Process Emission Limits – Transfer of Flake** - Emissions from the transfer of cellulose acetate flake from the live-bottom truck hoppers to the existing Storage silos shall not exceed the limitations specified below:

Particulate Matter (PM)	1.0 lbs/hr	1.50 tons/yr
PM-10	1.0 lbs/hr	1.50 tons/yr

The annual emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Conditions VIII.A.9 and VIII.C.1.
(9VAC5-80-110 and Condition 104 of 8/15/2011 permit amended 12/20/2018)
15. **Process Emission Limits – Building 2 Weigh Bin** - Emissions from the operation of the Building 2 Cellulose Acetate weigh bin shall not exceed the limitations specified below:

Particulate Matter (PM) 0.85 lbs/hr 3.7 tons/yr

The annual emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limit may be determined as stated in Conditions VIII.A.12 and VIII.C.1.
(9VAC5-80-110 and Condition 105 of 8/15/2011 permit amended 12/20/2018)

- 16. Process Emission Limits – Building 2** - Emissions from the operation of the fabric filter (2PRVT011C1) controlling PM-10 emissions from the Building 2 CA Flake Weigh Hopper Receiver (2PRVT011S1) shall not exceed the limits specified below:

PM-10 0.01 gr/dscf 0.56 tons/yr

The annual emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limit may be determined as stated in Conditions VIII.A.12 and VIII.C.1.
(9VAC5-80-110 and Condition 106 of 8/15/2011 permit amended 12/20/2018)

- 17. Process Emission Limits – Building 2** - Emissions from the operation of the fabric filter (2PRVT017C1) controlling PM-10 emissions from the Building 2 CA Flake WOFA Handling (2PRVT017S1) shall not exceed the limits specified below:

PM-10 0.01 gr/dscf

(9VAC5-80-110 and Condition 107 of 8/15/2011 permit amended 12/20/2018)

- 18. Process Emission Limits – Building 32** - Emissions from the operation of the fabric filters (2PRVT013C1, 2PRVT014C1 and 2PRVT015C1) controlling PM and PM-10 emissions from the transfer of cellulose acetate flake into the weigh hopper serving Mixer 9, 10, 11 and 11A shall not exceed the limits specified below:

Particulate Matter (PM) 0.02 gr/dscf (each) 2.33 tons/yr (combined)

PM-10 0.02 gr/dscf (each) 2.33 tons/yr (combined)

(9VAC5-80-110 and Condition 108 of 8/15/2011 permit amended 12/20/2018)

- 19. Process Emission Limits – Alternate Pneumatic Conveyor Lines** - The combined particulate emissions from the fabric filters controlling the alternate pneumatic conveyor lines shall not exceed 0.358 pounds per hour.
(9VAC5-80-110 and Condition 109 of 8/15/2011 permit amended 12/20/2018)

20. Process Emission Limits – Semco - Emissions from the operation of the Semco flake handling unit shall not exceed the limits specified below:

Particulate Matter (PM) 0.23 lbs/hr 1.0 tons/yr

PM-10 0.23 lbs/hr 1.0 tons/yr

Annual emissions shall be calculated as the sum of each consecutive 12-month period. Compliance with the annual emission limit may be determined as stated in Condition VIII.C.1.

(9VAC5-80-110 and Condition 110 of 8/15/2011 permit amended 12/20/2018)

21. Process Emission Limits – Semiworks - Emissions from the operation of the preparation Semiworks process shall not exceed the limits specified below:

Particulate Matter (PM) 1.8 lbs/hr 0.8 tons/yr

PM-10 1.8 lbs/hr 0.8 tons/yr

The annual emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Emissions shall be calculated as the sum of each consecutive 12-month period. Compliance with the annual emission limits may be determined as stated in Conditions VIII.A.10 and VIII.C.1.

(9VAC5-80-110 and Condition 111 of 8/15/2011 permit amended 12/20/2018)

22. Process Emission Limits – Loadout Facility - Emissions from the operation of the loadout facility shall not exceed the limits specified below:

Particulate Matter (PM) 2.3 lbs/hr 3.6 tons/yr

The annual emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Emissions shall be calculated as the sum of each consecutive 12-month period. Compliance with the annual emission limits may be determined as stated in Conditions VIII.A.11 and VIII.C.1.

(9VAC5-80-110 and Condition 7 of 2/11/2005 permit)

23. Visible Emission Limit – Truck Unloading & Storage Silos - Visible emissions from each of the fabric filters serving the cellulose acetate flake live-bottom truck unloading facility and the fabric filters serving the Storage Silos shall not exceed 5% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 10% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9VAC5-80-110 and Condition 112 of 8/15/2011 permit amended 12/20/2018)

- 24. Visible Emission Limit – Building 2** - Visible emissions from the fabric filters (2PRVT011C1 and 2PRVT017C1) shall not exceed 5% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9VAC5-80-110 and Condition 113 of 8/15/2011 permit amended 12/20/2018)
- 25. Visible Emission Limit – Semco** - Visible emissions from the Semco flake handling unit shall not exceed 5% except during one six-minute period in any one hour in which visible emissions shall not exceed 10% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9VAC5-80-110 and Condition 114 of 8/15/2011 permit amended 12/20/2018)
- 26. Visible Emission Limit – Semiworks** - Visible emissions from the preparation Semiworks process shall not exceed 5% opacity except during one six-minute period in any hour in which visible emissions shall not exceed 10% opacity.
(9VAC5-80-110 and Condition 115 of 8/15/2011 permit amended 12/20/2018)
- 27. Visible Emission Limit – Loadout Facility** - Visible emissions from the loadout facility shall not exceed 5% opacity except during one six-minute period in any hour in which visible emissions shall not exceed 10% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times.
(9VAC5-80-110 and Condition 8 of 2/11/2005 permit)

B. Monitoring

- 1. Monitoring Devices - Building 2** - The fabric filter handling particulate emissions from the Building 2 CA Flake Weigh Hopper Receiver (2PRVT011S1) shall be equipped with a device to continuously measure the pressure differential across the fabric filter.
- The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the Building 2 CA Flake Weigh Hopper Receiver is operating.
(9VAC5-80-110 and Condition 95 of 8/15/2011 permit amended 12/20/2018)
- 2. Monitoring Devices - Building 2** - The fabric filter handling particulate emissions from the Building 2 WOFA Handling (2PRVT017S1) shall be equipped with a device to continuously measure the pressure differential across the fabric filter.
- The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when

the Building 2 WOFA Handling is operating.
(9VAC5-80-110 and Condition 96 of 8/15/2011 permit amended 12/20/2018)

3. **Monitoring Device Observation - Building 2** - To ensure good performance, the fabric filter monitoring devices used to continuously measure the differential pressure drop (Conditions VIII.B.1 and VIII.B.2) shall be equipped with a system that notifies appropriate personnel when the normal operating range is exceeded. The normal operating range shall be based on manufacturers recommendations and operating history. The permittee shall keep a log of each notification and the corrective action taken.
(9VAC5-80-110 and Condition 97 of 8/15/2011 permit amended 12/20/2018)
4. **Monitoring Device and Observation – Semco** - At least once each week the Semco unit is operating either the pressure drop shall be checked and recorded or a visible emission observation using EPA Method 22 techniques shall be conducted. If the pressure drop monitoring option is chosen, the Semco flake handling unit fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location.
(9VAC5-80-110 and Condition 98 of 8/15/2011 permit amended 12/20/2018)
5. **Monitoring Device and Observation – Semiworks** - The Semiworks process unit fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that they are in proper working order at all times. Pressure drop shall be checked and recorded at least once per each week the unit is operating.
9VAC5-80-110 and Condition 99 of 8/15/2011 permit amended 12/20/2018)
6. **Monitoring Device – Loadout Facility** - The fabric filter baghouse shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the loadout facility is operating.
(9VAC5-80-110 and Condition 5 of 2/11/2005 permit)
7. **Monitoring Device Observation – Loadout Facility** - To ensure good performance, the fabric filter monitoring device used to continuously measure the differential pressure drop (Condition VIII.B.6) shall be equipped with a system that notifies appropriate personnel when the normal operating range is exceeded or read and recorded once per week that the Loadout Facility operates. The normal operating range shall be based on manufacturers recommendations and operating history. The permittee shall keep a log of each notification and the corrective action taken or the

readings.
(9VAC5-80-110)

8. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the fabric filters installed on the storage silos, live truck CA flake unloading facility, pneumatic conveyor system, Semco Flake Handling Unit, Preparation Semiworks process, Building 2 CA Flake Weigh Hopper (2PRVT011S1), Building 2 WOFA Handling (2PRVT017S1), Flake Loadout Facility and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance;
- b. Maintain an inventory of spare parts that are needed to maintain the fabric filters in proper order;
- c. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the control devices and maintain records of inspection results;
- d. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum; and
- e. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance, inspections and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request. (9VAC5-80-110, Condition 18 of 2/11/2005 permit and Condition 103 of 8/15/2011 permit amended 12/20/2018)

C. Recordkeeping

1. **On Site Records** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
 - a. Hours of operation of the Semco Flake Handling Unit;

- b. Annual throughput of cellulose acetate flake through the CA live bottom truck unloading facility, calculated monthly as the sum of each consecutive 12-month period to verify compliance with Condition VIII.A.9;
- c. Annual throughput of cellulose acetate through the Preparation Semiworks process, calculated as the sum of each consecutive 12-month period to verify compliance with Condition VIII.A.10;
- d. Annual processing of flake through the Building 2 CA Flake Weigh Hopper Receiver (2PRVT011S1) (in tons), calculated monthly as the sum of each consecutive 12-month period to verify compliance with Condition VIII.A.12. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- e. Annual throughput of cellulose acetate flake loaded at the loadout facility, calculated monthly as the sum of each consecutive 12-month period.
- f. Annual emission calculations and all supporting documentation for emissions using calculation methods approved by the Blue Ridge Regional Office to verify compliance with the emission limitations in Conditions VIII.A.13, VIII.A.14, VIII.A.15, VIII.A.16, VIII.A.18, VIII.A.19, VIII.A.20, VIII.A.21 and VIII.A.22;
- g. Operation and control device monitoring records for the air pollution control devices as required in Condition VIII.B.3, VIII.B.4, VIII.B.5 and VIII.B.7; and
- h. Scheduled and unscheduled maintenance, operator training and maintenance/inspection reports as required by Condition VIII.B.8.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9VAC5-50-50, 9VAC5-80-110, Condition 9 of 2/11/2005 permit and Condition 116 of 8/15/2011 permit amended 12/20/2018)

D. Testing

- 1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9VAC5-50-30 and 9VAC5-80-110)
- 2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.

(9VAC5-80-110)

IX. Wastewater Treatment Plant

A. Limitations

1. **Emission Controls** - Volatile Organic Compound (VOC) emissions from the two new WTP diversion tanks (3WWTK004S1 and 3WWTK005S1) shall be controlled by limiting the amount of diversion water and VOC concentration in the diversion water.
(9VAC5-80-110 and Condition 119 of 8/15/2011 permit amended 12/20/2018)
2. **Throughput** - The annual throughput of diversion wastewater in these two tanks (3WWTK004S1 and 3WWTK005S1) combined shall not exceed 73.6 million gallons, calculated monthly as the sum of each consecutive 12-month period.
(9VAC5-80-110 and Condition 123 of 8/15/2011 permit amended 12/20/2018)
3. **Throughput** - The annual average concentration of VOC in the diversion wastewater entering the two diversion tanks (3WWTK004S1 and 3WWTK005S1) shall not exceed 0.981% by weight. The daily concentration of VOC by weight shall be calculated using the daily flow and VOC concentration. The monthly average VOC concentration by weight shall be calculated by averaging the daily concentration of VOC. The annual average concentration shall be calculated monthly as the sum of each consecutive 12-month period.
(9VAC5-80-110 and Condition 124 of 8/15/2011 permit amended 12/20/2018)
4. **Process Emission Limits** - Emissions from the operation of the two wastewater treatment plant diversion tanks shall not exceed the limits specified below:

Volatile Organic Compounds	3.6 tons/yr
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The annual emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual limit may be determined as stated in Conditions IX.B.3 and IX.C.1.
(9VAC5-80-110 and Condition 125 of 8/15/2011 permit amended 12/20/2018)

5. **Process Emission Limits** - Total emissions from the operation of the wastewater treatment plant shall not exceed the limits specified below:

Volatile Organic Compounds	32.9 tons/yr
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Compliance with these limits may be determined as stated in Condition IX.C.1.

(9VAC 5-80-110 and Condition 126 of 8/15/2011 permit amended 12/20/2018)

6. **Process Emission Limits** – Particulate emissions from the Wastewater Treatment Plant operations, other than fuel burning equipment, shall be less than or equal to 30.5 lbs/hr.
(9VAC5-40-260.A)

B. Monitoring

1. **Monitoring Devices** – The inlet piping to the diversion tanks shall be equipped with a device that continuously measures the flow of diversion wastewater into the tanks. The device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations.
(9VAC5-80-110 and Condition 120 of 8/15/2011 permit amended 12/20/2018)
2. **Monitoring Device Observation** – The flow of diversion wastewater shall be recorded at least once per hour while diversion wastewater is entering the tanks.
(9VAC5-80-110 and Condition 121 of 8/15/2011 permit amended 12/20/2018)
3. **Monitoring** – The permittee shall sample the VOC concentration of diversion wastewater. Samples shall be taken each day the diversion wastewater is fed into the diversion tanks. Sampling and analytical procedures shall be arranged with the Blue Ridge Regional Office.
(9VAC5-80-110 and Condition 122 of 8/15/2011 permit amended 12/20/2018)
4. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of each control device and maintain records of inspection results.
- c. Maintain an inventory of spare parts.
- d. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

- e. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance, inspections and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request. (9VAC5-80-110 and Condition 128 of 8/15/2011 permit amended 12/20/2018)

C. Recordkeeping

1. **On Site Records** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
 - a. The daily and annual throughput of diversion waste water. The annual throughput shall be calculated monthly as the sum of each consecutive 12-month period to verify compliance with Condition IX.A.2.
 - b. Results of all sampling and analysis of diversion wastewater to verify compliance with Condition IX.A.3.
 - c. Daily and annual calculations and all supporting documentation for the VOC content of diversion wastewater entering the two diversion wastewater tanks while in diversion service to verify compliance with the emission limitation in Condition IX.A.3. Annual VOC content shall be calculated monthly as the sum of each consecutive 12-month period.
 - d. Monthly and annual emissions calculations and all supporting documentation for emissions from the operation of the wastewater treatment plant to verify compliance with the emission limitation in Conditions IX.A.4 and IX.A.5. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9VAC5-50-50, 9VAC5-80-110 and Condition 127 of 8/15/2011 permit amended 12/20/2018)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall

be provided at the appropriate locations.
(9VAC5-50-30 and 9VAC5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9VAC5-80-110)

X. Jet Department

A. Limitations

1. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the chromium plating equipment shall be operate in accordance with 40 CFR 63 Subpart N – National Emission Standards for Chromium Emissions from Hard Decorative Chromium Electroplating and Chromium Anodizing Tanks and in accordance with 40 CFR Subpart A as identified in Table 1 of 40 CFR 63 Subpart N. Note: 40 CFR Part 63, Subpart N allows for the use of a control device(s) for compliance purposes. The use of control device(s) was not required to comply with this MACT. Therefore, for conciseness, MACT terms and conditions identified as potentially pertaining only to control devices have not been included in this permit.
(9VAC5-80-110, 9VAC5-60-80, 9VAC5-60-100 and 40 CFR 63.340)
2. Emissions of Chromium from the plating bath shall not exceed 1.3×10^{-5} gr/dscf. This limit applies at all times except during periods of malfunction.
(9VAC5-80-110, 9VAC5-60-90, 9VAC5-60-100 and 40 CFR 63.342(c)(1)(ii))

B. Monitoring

1. Monitor and record once per shift the pressure drop, temperature, bath concentration, amperage, fan operation and general working condition of the equipment according to the Operation and Maintenance Plan required in Condition X.B.2 of this section of the permit.
(9VAC5-80-110, 9VAC5-60-90, 9VAC5-60-100 and 40 CFR 63.343(c))
2. Work Practice Standards: The permittee shall prepare an Operations and Maintenance Plan. The plan shall include the following:
 - a. The operational and maintenance criteria for the affected source and a standardized checklist documenting operations and maintenance of the equipment.
 - b. The plan shall specify procedures to be followed to ensure that malfunctions due to poor maintenance or preventable conditions do not occur.

- c. The plan shall include a system for identifying malfunctions or equipment and monitoring devices and implementing corrective actions.
- d. If the plan fails to address or inadequately addresses a malfunction, the plan shall be revised with 45 days to adequately address a similar malfunction. Revisions or modifications to the plan do not require a revision of the source's Title V permit.

(9VAC5-80-110, 9VAC5-60-90, 9VAC5-60-100 and 40 CFR 63.342(f)(3))

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this section of the permit. The format of such records shall be arranged with the Blue Ridge Regional Office. These records are:

- 1. Records of compliance monitoring required by Condition X.B.1 of this section of the permit.
- 2. Inspection reports and scheduled and non-scheduled maintenance for the chrome plating bath tank; for the rectifier and its amperage monitor; for the tank heating system and temperature controller; and for the chrome plating bath tank ventilation fan, its fume collection system and its pressure monitor.
- 3. Copies of reports required by Condition X.E of this section of the permit.
- 4. Plating bath equipment operator training.
- 5. The operations and maintenance plan shall be retained for the life of the affected source, or until the source is no longer subject to 40 CFR 63 Subpart N. Superseded versions of the plan shall be maintained for 5 years from the date superseded.
- 6. Records of the actions taken during a malfunction, of the determination whether actions taken during a malfunction are inconsistent with the operating plan and of the malfunction report submitted to BRRO, DEQ.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9VAC5-40-50, 9VAC5-60-90, 9VAC5-60-100, 9VAC5-80-110 and 40 CFR 63.342(f)(3))

D. Testing

- 1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall

be provided at the appropriate locations.
(9VAC5-40-30 and 9VAC5-80-110)

E. Reporting

The permittee shall submit a semiannual Ongoing Compliance Report to the Blue Ridge Regional Office and to the EPA, Region 3, Director, Air Protection Division. The time periods to be addressed are January 1 to June 30 and July 1 to December 31. The permittee shall submit the report to the DEQ no later than March 1 and September 1, respectively of each calendar year. The report shall include the following information:

1. Name and address of the company
2. Identification of the operating parameter that is monitored.
3. The emission limitation for the affected source, and the operating parameter value or range that corresponds to compliance with the emission limitation.
4. The beginning and ending dates of the reporting period.
5. A brief description of the type of process.
6. The total operating time of the affected source during the reporting period.
7. Summary of operating parameter values, total duration of excess emission and a breakdown total duration of excess emissions due to process upsets, other known causes, and unknown causes.
8. Certification by a responsible official that the work practice standards in 40 CFR 63.342 were followed, or an explanation of the reasons for not following the Operations and Maintenance Plan, an assessment of excess emissions and a copy of the reports required by 40 CFR 63.342(f)(3)(iv) documenting the plan was not followed.
9. Description of any changes in monitoring, process or controls since the last reporting period.
10. The report shall be dated and include the name, title and signature of the person certifying accuracy of the report.
11. If, for any reason, the affected facilities fail or malfunction and may cause excess emissions for more than one hour, the owner shall notify the Blue Ridge Regional Office according to Failure/Malfunction Reporting condition in the General Conditions section of this permit. If actions taken during a malfunction are inconsistent with the operating plan, the permittee shall record the actions taken

during the malfunction and report to the Blue Ridge Regional Office by phone or fax and to the EPA Region 3, MACT Compliance Coordinator, by fax, within two days of commencing activities inconsistent with the plan, followed by a written letter within seven (7) days after the end of the event.
(9VAC5-80-110, 9VAC5-60-90, 9VAC5-60-100, 40 CFR 63.347(f)(3) and 40 CFR 63.347(g)(3))

XI. Facility Wide Conditions

A. Limitations

1. **Existing Source Standard for Visible Emissions** - Unless otherwise specified in this permit, no owner or other person shall cause or permit to be discharged into the atmosphere from any existing source any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section. Opacity shall be determined in accordance with 40 CFR, Part 60, Appendix A, Method 9.
(9VAC5-80-110 and 9VAC5-40-80)
2. **New Source Standard for Visible Emissions** - Unless otherwise specified in this permit, no owner or other person shall cause or permit to be discharged into the atmosphere from any new source, visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section. Opacity shall be determined in accordance with 40 CFR, Part 60, Appendix A, Method 9.
(9VAC -80-110 and 9VAC5-50-80)
3. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9VAC5-20-180 I, 9VAC5-80-110, Condition 17 of the 2/11/2005 permit and Condition 132 of the 8/15/2011 permit amended 12/20/2018)
4. **Condition for Granting Permit** – No project shall result in a major modification as defined in 9VAC5-80-1615 without receiving a permit pursuant to 9VAC5-80 Article 8. For projects which rely on excluded emissions (subsection C of the definition of “projected actual emissions” in 9VAC5-80-1615) to be exempt from review under 9 VAC 5-80 Article 8, the following conditions shall apply:
 - a. The permittee shall maintain records sufficient to demonstrate the project did not result in a major modification as defined in 9VAC5-80-1615. Any increase in

emissions without sufficient documentation shall be attributed to the project.

- b. If annual emissions after the project (12 month rolling average) exceed the “baseline actual emissions” (as defined in 9VA 5-80-1615) for the project by a “significant” amount (as defined in 9VAC5-80-1615), the permittee shall notify the Blue Ridge Regional Office within fifteen (15) days after the event.

For each applicable project, Conditions XI.A.4.a and XI.A.4.b are effective for the projection period as prescribed in the definition of “projected actual emissions” located in 9VAC5-80-1615. Nothing in this condition shall restrict when the Board may find the permittee in violation of 9VAC5-80-1625 A.
(9VAC5-80-110 and Condition 129 in 8/15/2011 permit amended 12/20/2018)

- 5. **Condition for Granting Permit** – No project shall result in a major modification as defined in 9VAC5-80-1615 without receiving a permit pursuant to 9VAC5-80 Article 8. For projects which rely on projected emissions, not potential to emit, to be exempt from review under 9VAC5-80 Article 8, the following conditions shall apply:

- a. The permittee shall maintain records sufficient to demonstrate the project did not result in a major modification as defined in 9VAC5-80-1615. Any increase in emissions without sufficient documentation to demonstrate it was not caused by a project shall be attributed to that project.
- b. If annual emissions after a project (12 month rolling total) exceed the projected actual emissions for the project, the permittee shall notify the Blue Ridge Regional Office within thirty (30) days after the event.

For each applicable project, Conditions XI.A.5.a and XI.A.5.b are effective for the projection period as prescribed in the definition of “projected actual emissions” located in 9VAC5-80-1615. Nothing in this condition shall restrict when the Board may find the permittee in violation of 9VAC5-80-1625.
(9VAC5-80-110 and Condition 85 in 8/15/2011 permit amended 12/20/2018)

B. Monitoring

1. Visible Emissions

At least once per week an observation of the presence of visible emissions from each emissions unit with a visible emission limit specified in Sections 0 through X shall be made while the emissions unit is in operation. If visible emissions are observed the permittee shall:

- a. take timely corrective action such that the emissions unit resumes operation with no visible emissions, or,

- b. perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the emissions unit do not exceed the opacity emissions limit. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed the opacity emissions limit specified in the permit, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the emissions unit resumes operation with visible emissions at or below the opacity emissions limit in the permit.
- c. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for each emissions unit, the permittee may reduce the monitoring frequency for that emissions unit to once per month. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week.

The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the emission unit has not been operated for any period during the week it shall be noted in the log book.
(9VAC5-80-110 E and VAC5-80-110 K)

C. Recordkeeping

- 1. **Record of Malfunctions** – The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
(9VAC5-20-180 J, 9VAC5-80-1180 D and Condition 87 in 8/15/2011 permit amended 12/20/2018)
- 2. For each of the following vessels subject to NSPS Subpart Kb requirements, the permittee shall maintain a record of:
 - a. The volatile organic liquid (VOL) stored;
 - b. The period of storage of the VOL;
 - c. The maximum true vapor pressure of that VOL during the respective storage period;
 - d. The dimension of the storage vessel; and

- e. An analysis showing the capacity of the storage vessel.

Emission Unit Description
Glacial Acetic Acid Storage Tank No. 113
Glacial Acetic Acid Tank 105
Glacial Acetic Acid Tank 107
Replacement Vats 21 and 22 (Future)
Vats 33, 34 and 35

(9VAC5-50-400, 9VAC5-50-410, 9VAC5-80-110, 40 CFR 60.116b(c))

D. Testing

1. **Emissions Testing** - The permitted facility shall be constructed to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9VAC5-40-30, 9VAC5-50-30 and 9VAC5-80-110)
2. If compliance testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25 and 25a
NO _x	EPA Method 7
SO ₂	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Method 5 and 17
Visible Emission	EPA Method 9

(9VAC5-80-110)

E. Reporting

1. The permittee shall notify the Blue Ridge Regional Office within 30 days, when the maximum true vapor pressure of the VOL stored in the vessel exceeds 27.6 kPa, for each of the vessels listed in Condition XI.D of this permit.
(9VAC5-50-400, 9VAC5-50-410, 9VAC5-80-110 and 40 CFR 60.116(b)(c))

XII. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
1D8TK002S1	Calcium Chloride Brine Storage Tank	9VAC5-80-720 A-42	NA	
	Waste Oil Tank	9VAC5-80-720 C-3	NA	<1000 gal
1D6TK002S1	Sulfuric Acid Tank	9VAC5-80-720 A-42	NA	
1D6TK004S1	Sulfuric Acid Head Tank	9VAC5-80-720 A-42	NA	
1D6TK005S1	Sulfuric Acid Head Tank	9VAC5-80-720 A-42	NA	
1D9TK008S1	Hydrogen Peroxide Tank	9VAC5-80-720 A-42	NA	
1D9TK009S1	Hydrogen Peroxide Tank	9VAC5-80-720 A-42	NA	
1D9BW001S1	B Washers in No. 1 through No. 6 Finishing Lines (6)	9VAC5-80-720 B	VOC	
1D9BW001S1	B Washers in No. 7 & No. 8 Finishing Line (2)	9VAC5-80-720 B	VOC	
<u>ACID RECOVERY DEPARTMENT</u>				
1ARVT001S1	D-10 Sewer	9VAC5-80-720 A.80	VOC	
	D-10 Lab Hoods (9)	9VAC5-80-720 A.18	VOC	
1ARVT006S1	Sample Jug Drain Tank in Pump Room	9VAC5-80-720 A.28	VOC	
1ARVT007S1	D-10 Sample Drain Tank	9VAC5-80-720 A.28	VOC	
<u>PREPARATION/FILAMENT/FILTER PRODUCTS/EXTRUSION/SOLVENT RECOVERY</u>				
4TXVT001S1	Bobbin Stripper (Hot Air Knife) (2)	9VAC5-80-720 B	NA	
4TXVT002S1	Beam Cleaning (water based "Handi Spray")	9VAC5-80-720 B	NA	
	No. 18, 19 Chiller room (emergency exhaust to outside - R123 chillers)	9VAC5-80-720 B	CFC	
4TXMS001S1	Plastic Heat Sealer in Reclaim Battery Charging Stations (2)	9VAC5-80-720 B	NA	
2SRAD001S1	Carbon Adsorber Unit No. 1	9VAC5-80-720 B-1	PM-10	
2SRAD002S1	Carbon Adsorber Unit No. 2	9VAC5-80-720 B-1	PM-10	
2SRAD003S1	Carbon Adsorber Unit No. 3	9VAC5-80-720 B-1.	PM-10	
2SRAD004S1	Carbon Adsorber Unit No. 4	9VAC5-80-720 B-1	PM-10	
2SRAD005S1	Carbon Adsorber Unit No. 5	9VAC5-80-720 B-1.	PM-10	
2SRAD006S1	Carbon Adsorber Unit No. 6	9VAC5-80-720 B-1	PM-10	
2SRAD007S1	Carbon Adsorber Unit No. 7	9VAC5-80-720 B-1	PM-10	
2SRAD008S1	Carbon Adsorber Unit No. 8	9VAC5-80-720 B-1	PM-10	
2SRAD009S1	Carbon Adsorber Unit No. 9	9VAC5-80-720 B-1	PM-10	
2SRAD010S1	Carbon Adsorber Unit No. 10	9VAC5-80-720 B-1	PM-10	
2SRAD011S1	Carbon Adsorber Unit No. 11	9VAC5-80-720 B-1	PM-10	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
<u>Equipment Linked to Adsorbers:</u>	Preparation Mixer (13) Preparation Plate Bath (3) Preparation Bldg. 2 MeO Storage Tank Preparation Residue Mixer (12) Preparation Basket Soak Tank (4) Solvent Recovery Tank Farm Vent Condenser Jet Manufacturing Acetone Baths Metier Stations Bobbin Cleaning Station Managed Building Air	9VAC5-80-720 B-1	PM-10	
	Prep Mineral Oil Storage Tanks (2)	9VAC5-80-720 B-2	VOC	7,500 gal
	FP G-Oil & Mineral Oil Storage Tanks (3)	9VAC5-80-720 B-2	VOC	13,000 gal
	FP ST-90 Mineral Oil Storage Tank	9VAC5-80-720 B-2	VOC	3,100 gal
	FP Finish Oil Tank	9VAC5-80-720 C-3	VOC	800 gal
	Filament Finish Oil Tanks (3)	9VAC5-80-720 C-3	VOC	800 gal
	Filament ST-90 Emulsion Tanks (3)	9VAC5-80-720 B-2	VOC	8,000 gal
2SRTK004S1	Biocide Storage Tank	9VAC5-80-720 B-2	VOC	
2SRTK005S1	MeO Storage Tank	9VAC5-80-720 B-2	VOC	1,500 gal
2SRTK006S1	B32 MeO Drawoff Holding Tank	9VAC5-80-720 B-2	VOC	
2SRBG001S1	"Blue Goose" Carbon Bed Adsorber Removal System	9VAC5-80-720 B-1	PM	
2SRTK001S1	50% Caustic Storage Tank	9VAC5-80-720 A-42	NA	
2SRTK002S1	50% Caustic Storage Tank	9VAC5-80-720 A-42	NA	
2SRTK003S1	Cooling Tower Caustic Storage Tank	9VAC5-80-720 A-42	NA	
<u>WWTP</u>				
3WWTK001S1	IPS Emergency Backup Generator Diesel Tank #1	9VAC5-80-720 A-41	VOC	<1,000 gal
3WWTK002S1	IPS Emergency Backup Generator Diesel Tank #2	9VAC5-80-720 A-41	VOC	<1,000 gal
	Ammonium Bisulfate Storage Tank	9VAC5-80-720 A-42	NA	8,000 gal

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
WWTK006S1	Ferric Chloride Tank	9VAC5-80-720 A-42	NA	
3MSDC001S1	Drum Cleaning Station and Oil/Water Separator	9VAC5-80-720 B-2	VOC	
JET DEPARTMENT				
5JMTV002S1	Sulfuric Acid & Nitric Acid Bath (Jet Acid Bath)	9VAC5-720 A-42	NA	
5JMTV003S1	Candle Cleaning Nitric/Sulfuric Bath	9VAC5-720 A-42	NA	
5JMTV003S2	Candle Cleaning Oakite Bath	9VAC5-720 A-42	NA	
MAINTENANCE COMPLEX/GENERAL FACILITIES				
3MTPB001S1	Maintenance Paint Spray Booth	9VAC5-80-720 B	VOC	< 2,000 gal paint sprayed/yr
3MSPM001S1	Fire Water Pump Diesel Motor	9VAC5-80-720 C	PM-10	235 BHP
3MSPM002S1	Fire Water Pump Diesel Motor	9VAC5-80-720 C	PM-10	235 BHP
3MSPM003S1	Fire Water Pump Diesel Motor	9VAC5-80-720 C	PM-10	357 BHP
3MSPM004S1	Fire Water Pump Diesel Motor	9VAC5-80-720 C	PM-10	357 BHP
3MSTK001S1	#3 Fire Water Pump Diesel Tank	9VAC5-80-720 A-41	VOC	< 500 gal
3MSTK002S1	#4 Fire Water Pump Diesel Tank	9VAC5-80-720 A-41	VOC	< 500 gal
3MSTK003S1	#5 Fire Water Pump Diesel Tank	9VAC5-80-720 A-41	VOC	< 500 gal
3MSTK004S1	#6 Fire Water Pump Diesel Tank	9VAC5-80-720 A-41	VOC	< 500 gal
3BHVT001S1	CaCl ₂ Freon Purge Unit - (#1,3,4)	9VAC5-80-720 B	CFC	
3BHVT002S1	MeCl ₂ Freon Purge Unit - (#6,7,8)	9VAC5-80-720 B	CFC	
3MSTK008S1	Diesel Tank at Landfill	9VAC5-80-720 A-41	VOC	
3MTCY001S1	Carpenter Shop Cyclone	9VAC5-80-720 A-11	PM-10	
3LFTK001S1	Landfill Leachate Collection Tank	9VAC5-80-720 A-42	NA	
3WWTK001S1	IPS Diesel Tank No. 1	9VAC5-80-720 A-41	VOC	< 500 gal
3WWTK002S1	IPS Diesel Tank No. 2	9VAC5-80-720 A-41	VOC	< 500 gal
3MTWS001S1	Welding Stations	9VAC5-80-720 B	VOC	< 500 gal

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-110.

XIII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 61 Subpart FF	NESHAP for Benzene Waste Operations	The plant no longer uses benzene.
40 CFR 60 Subpart NNN	Standards of Performance for Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations	1/26/96 memo from DEQ documents that NSPS does not apply to the Isopropanol still installed as the AR unit.
40 CFR 63 Subpart UUUU	National Emission Standards for Hazardous Air Pollutants for Cellulose Products Manufacturing	8/1/2002 memo from T. Thompson of DEQ documents that this MACT regulation does not apply to the facility
40 CFR 61 Subpart J	National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene	The plant no longer uses benzene.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9VAC5-80-140)

XIV. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9VAC5-80-110)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

(9VAC5-80-80, 9VAC5-80-110 and 9VAC5-80-170)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements.
- b. The date(s) analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses.
- f. The operating conditions existing at the time of sampling or measurement.

(9VAC5-80-110)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9VAC5-80-110)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:

- (i) Exceedance of emissions limitations or operational restrictions;
 - (ii) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
 - (iii) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9VAC5-80-110)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
5. Consistent with subsection 9VAC5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.
7. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9VAC5-80-110)

E. Permit Deviation Reporting

The permittee shall notify the Blue Ridge Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XIV.C.3 of this permit.
(9VAC5-80-110 F.2)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Blue Ridge Regional Office of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Blue Ridge Regional Office.
(9VAC5-80-110 and 9VAC5-20-180)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the

permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9VAC5-80-110)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9VAC5-80-110)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9VAC5-80-110)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-50, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9VAC5-80-110, 9VAC5-80-190 and 9VAC5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.
(9VAC5-80-110)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9VAC5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-80 G.
(9VAC5-80-110)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9VAC5-80-50 through 9VAC5-80-300 was issued shall pay permit fees consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9VAC5-80-110, 9VAC5-80-340 and 9VAC5-80-2340)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9VAC5-40-90, 9VAC5-50-90 and 9VAC5-80-110)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9VAC5-40-20 E, 9VAC5-50-20 E and 9VAC5-80-110)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 1. (9VAC5-80-110)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times' substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9VAC5-80-110)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-110 D.

(9VAC5-80-110)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9VAC5-80-110 and 9VAC5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9VAC5-80-130, or from one piece of equipment to another.
(9VAC5-80-110 and 9VAC5-80-160)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-200.
(9VAC5-80-110 and 9VAC5-80-160)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the

Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC 5-80-200.
(9VA 5-80-110 and 9VAC5-80-160)

U. This condition intentionally left blank.

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9VAC5-80-110, 9VAC5-80-190 C and Condition 86 of 8/15/2011 permit amended 12/20/2018)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a 12/20/2018 permit.
(9VAC5-80-110 and 9VAC5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(9VAC5-80-110 and 40 CFR Part 82)

Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9VAC5-60-70 and 9VAC5-80-110)

Z. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(9VAC5-80-110 and 40 CFR Part 68)

AA.Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9VAC5-80-110)

BB.Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9VAC5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-50 through 9VAC5-80-300.

(9VAC5-80-110)